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19 February 1986

USSR Report

MILITARY AFFAIRS

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USSR REPORT
MILITARY AFFAIRS

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MILITARY-POLITICAL ISSUES

PARTY MEETING DISCUSSES DRAFT CONGRESS DOCUMENTS

Moscow KRASNAYA ZVEZDA in Russian 16 Nov 85 p 2

[Article by Gds Col M. Surkov, Moscow Military District: "Thoughts Which Call to Action"]

[Text] The chief of the Moscow Military District's political directorate and member of the military council, Colonel General I. Repin, gave a report at a meeting. Speaking about pre-Congress documents, he shifted from various propositions to specific deeds of the regiment's communists. Here, for example, the vanguard role of the communists is being discussed. The speaker presents facts. Every third communist of the regiment is an expert in training as is every second one for the district on the average. Five communists assumed the obligation to attain the qualification of master, and three kept their word. On the concluding check, the battalion commanded by Guards Lieutenant Colonel A. Dolgopolov received an overall grade of "satisfactory."

Concern is caused by the fact that there are also communists among the violators of discipline. This year Guards Senior Lieutenant I. Pereponov and Guards Warrant Officers [praporshchik] P. Tsyrkunov and L. Rybalko were dropped from the ranks of the party.

The businesslike tone of the report and its pointedness, devotion to principle, and constructive nature inclined the communists toward a frank and thorough conversation, the nature of which showed that those who had assembled attentively became acquainted with the pre-Congress documents through the prism of which what had been done was examined, the reasons for omissions were analyzed, and ways to accelerate movement forward were outlined.

Guards Captain A. Makarenko, battery commander:

During the past year, our battery could have attained more significant indices if I and other communists of the subunit had displayed the maximum organization and initiative in the accomplishment of our official duties. We never could completely solve some problems: the loading teams do not operate with sufficient clarity on the assembly signal, the engineer improvements of the command posts leave much to be desired, and interruptions in communications occur. And take the artillery gunnery training of the platoon leaders. For some reason, it is considered that since, as a rule, battery and battalion commanders act in the role of firer, the young officers need not be included in serious training in

this regard. But you see, in case of necessity it is precisely the platoon leader who should replace the battery commander at the observation post and accomplish the fire mission successfully. By the way, this is also required by the guidance documents. Unfortunately, our lack of organization was also overlooked by the regiment's party committee.

I attentively studied the draft CPSU Regulation with the proposed changes. I believe that in Section 9, where it is stated that party organizations are concerned about raising the combat readiness of the troops and the strengthening of military discipline, "and organization" should be added.

I believe that the foundation for all successes is exactly in organization.

Guards Major V. Cherkasov, political officer:

Here is what I would say: each line of the pre-Congress documents--contains thoughts and goals which call us to action.

The party requires that each communist participate actively in ideological work. The period of the national discussion of the basic party documents is an important test for each of us. Just how can we pass this examination? Guards Lieutenant Colonel V. Shunkov, Guards Major A. Fedotovskikh, and many others of our comrades relate to ideological and indoctrinational work creatively and in fact are political fighters. Unfortunately, this cannot be said of Guards Majors A. Zhuravlev, S. Safrygin, and V. Volkov. I mention their names not because in general they avoid contacts with people. We are discussing something else: with what they go out to their students. Sometimes--with lecture abstracts and talks which are half a year old. It is very seldom that the named comrades, hearing an important report about events in the country or abroad over the radio, hasten to share the news with their subordinates. And such effectiveness is all the more important because newspapers reach the unit only after dinner. By the way, for some reason this circumstance does not greatly disturb the political section of the large unit and the unit party committee.

Based on what has been said, I believe that Section 5, part 2, of the draft of the new wording of the CPSU Program which discussed the point that ideological activity should be distinguished by the depth of ideological-theoretical content and broad information content and should completely and accurately consider the reality of domestic and international life and should also be supplemented by the requirement for its effectiveness is appropriate.

Guards Major Ye. Zhukov, battalion commander:

I believe that one of the reasons for our lagging behind other units of the large unit this year is also insufficient information about that which is new which appeared among our competitors in the competition and what experience should be borrowed from them. Much has been said about the necessity to disseminate experience but for the present there has been little improvement.

The draft of the Party Program's new wording talks about improving the organization of competition and raising its effectiveness. Evidently the importance of its wide publicity should be stressed. It is publicity which will help to get rid of formalism and stereotype in this matter and will give wings to leading experience.

Guards Captain V. Terentyev, regimental staff officer:

I want to focus attention on the communist's personal example, on his moral makeup. Aren't we too tolerant at times toward those who disgrace the lofty title of party member? Here we have already mentioned the names of Pereponov, Tsyrkunov, and Rybalko. Ultimately our party organization adopted a harsh decision and displayed devotion to principle.

And let us recall how earlier we displayed "soft-heartedness" when we decided to lift punishment from Warrant Officer Rybalko: he understood and realized, they said. Later it became clear: he did not understand. And our softness, it seems to me, pushed him toward new delinquencies.

In paragraph 9 of the draft CPSU Regulation with proposed changes it is said that the party organization, no later than a year after inflicting punishment on a communist, is to hear from him as to how he is correcting his shortcomings. This is correct.

And the decision on lifting punishment, in my opinion, should be made no sooner than after a year. In addition, I believe it important that the following be stated in the CPSU Regulation: those who have received criminal punishment are not reaccepted in the party.

Guards Warrant Officer O. Naumov, secretary of the battalion Komsomol buro:

During the past year the Komsomols had to reelect three secretaries of their organizations. The Komsomol committee and buro of the battalion Komsomol organizations erred concerning people. But neither can the communists shed the guilt for these errors.

And about one other thing--about the authority of the primary Komsomol organization. In the draft CPSU Regulation with the proposed changes it is stated that Komsomol members who enter the party present the recommendation of the rayon and city Komsomol committee. But you see, the primary Komsomol organization knows the strong and weak aspects of the entrant. Therefore, I propose writing that it is the Komsomol organization which should recommend its alumnus for the party and this recommendation should be confirmed by the higher Komsomol organ.

Guards Lieutenant Colonel V. Shunkov:

As the party stresses, the solution of problems of personnel policy is the duty not only of leaders and workers of personnel organs, but also of the party organization.

The battery commanded by Guards Senior Lieutenant Ye. Dunayev has been showing low results for several years in a row. But who will pose the question of the officer's failure to conform to the occupied post? According to the opinion of Guards Major S. Zhuravlev, Dunayev's immediate superior, only the workers of the personnel organs. The necessity for the opinion of the party organization to be appreciable and significant has matured. This will help us to avoid many errors in advancing people.

In the resolution which was adopted, the unit meeting unanimously approved the draft of the program's new wording and the draft of the CPSU Regulation with the proposed changes. Measures were outlined which are directed toward the initiation of broad organizational and mass-political measures for the profound and comprehensive explanation of the pre-Congress documents to the personnel.

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CSO: 1801/65

WARSAW PACT

BRIEFS

SOKOLOV GREETINGS TO KESSLER--To Army General H. Kessler, German Democratic Republic Minister of Defense. Dear Comrade Heinz Kessler! On behalf of the USSR Armed Forces and myself personally, I sincerely congratulate you on your appointment as minister of national defense of the German Democratic Republic and promotion to the rank of general of the army. I am firmly convinced that the invincible brotherhood in arms between the Soviet Armed Forces and the GDR National People's Army will continue to expand and be strengthened in the interests of increasing the defensive capabilities of our countries and the Warsaw Pact member-states. I wish you good health, happiness, and great success in your highly crucial activities for the good of the German Democratic Republic and the entire socialist community. Respectfully yours, MSU S. Sokolov, USSR Minister of Defense. [Text] [Moscow KRASNAYA ZVEZDA 4 Dec 85 p 1] 12567

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ARMED FORCES

EDITORIAL: PREPARING FOR 27TH CPSU CONGRESS

Moscow KRASNAYA ZVEZDA in Russian 15 Nov 85 p 1

[Editorial: "An Important Political Task"]

[Excerpts] These days throughout our entire country in party organizations, and in labor collectives, in troop units and on ships, work is gathering momentum on discussion, propagandizing, and explanation of drafts of the party program's new wording, of changes in the CPSU Regulation, and the Basic Directions for the Economic and Social Development of the USSR for 1986-1990 and the Period Out to the Year 2,000. This work is extremely important, for the guarantee of our society's successful advance along the planned path is in the conscious activity of the masses, in the Soviet people's profound understanding of the party's ideas, goals, and lines, and in their inspired labor.

Today, the military councils, commanders, political organs, and party organizations are confronted by the important task of realizing the instructions of the October (1985) plenum of the CPSU Central Committee: to ensure active and interested participation in the discussion of pre-Congress documents by communists and non-party people and see that each one knows well the program goals and tasks of the party and the meaning of its domestic and foreign policy and has a deep understanding of the objective necessity for a substantial acceleration of society's social and economic development as the bases for improving the well-being of the people, strengthening the might of the socialist motherland, and its successful struggle for peace and the security of peoples.

An objective, interesting conversation on long-term and current tasks of the party and the people in close connection with the deeds of collectives should further an increase in the professional activity of personnel and of all servicemen, workers, and employees of the Armed Forces and mobilize them for the solution of specific practical problems. The main reference points here should be a further rise in vigilance and combat readiness, improvement of combat and political training, the strengthening of military discipline, organization, and order, and the actual improvement of matters on each sector in the spirit of contemporary requirements.

To bring the party's ideas to the mind and heart of each communist and each serviceman--this is what stands at the center of party work today. The discussion of drafts of the CPSU program's new wording and changes in the Party Regulation will take place at the meetings of communists in primary party organizations and

at party conferences. At party meetings, we have in mind the hearing of special reports on these questions. At party conferences of large units, military educational institutions, institutions, formations [obyedineniye], districts, groups of forces, and fleets it is recommended that the essence of the draft of the party program's new wording and the changes being introduced in the CPSU Regulation be presented in the main reports of the political organs. Decrees of conferences on the results of the discussions will be adopted separately.

The draft of the Basic Directions for the Economic and Social Development of the USSR will be discussed at meetings of the personnel of troop units and of workers and employees of enterprises, organizations, and institutions of the Soviet Ministry of Defense. It is also recommended that the draft of the Main Directions be included as a separate question on the agenda of district, group, and fleet party conferences.

Discussion of pre-Congress documents should be conducted on a high organizational and ideological-political level and should bear an open, businesslike nature. It should be seen that not one valuable proposal is overlooked and that not one valuable thought slips from concerned consideration at the corresponding levels.

Important tasks are present in the area of the propagandizing and studying of the pre-Congress documents. For these purposes, six hours of training time are allotted in the system of Marxist-Leninist training of the officer personnel and the political instruction of warrant officers [praporshchik and michman], eight hours on political lessons with soldiers, sailors, sergeants, and petty officers, and nine hours where three-hour political lessons are conducted. It is proposed that three special lessons be conducted in all forms of political instruction, economic education, and Komsomol political education and two two-hour lectures and one four-hour seminar in universities of Marxism-Leninism and schools for party activists. In military-educational institutions there should be four hours of lessons charged to reserve time. It is necessary to make wide use of the party's pre-Congress documents when studying regular subjects in Marxist-Leninist training, in the political training of all categories of servicemen, workers, and employees, and when studying planned subjects in social sciences in military educational institutions.

In this connection it is important to conduct efficiently and in a quality manner briefings, seminars, and conferences with propagandists concerning the content and tasks of agitation-propaganda and mass-political work in the forthcoming period. It is necessary to organize everywhere the conduct of common political days, lectures, reports, talks, political information sessions, pre-Congress readings, and thematic soirees and matinees. Leading command and political personnel and all communists are called upon to take a most active part in propagandizing party documents. The capabilities of cultural-educational institutions, radio broadcasting, and television should be utilized more completely.

The concluding stage of preparations for the Congress imposes high demands on the mass media and propaganda means including the military press organs. They should become the rostrum for the discussion of the party's pre-Congress documents by army and fleet communists and all servicemen. It is also important to illuminate the process itself and the experience in the discussion, propagandizing and explanation of party documents in party organizations and troop and labor collectives which is useful for others.

The result of this work will be the further rallying of the men around the party, their mobilization for the active accomplishment of the tasks of the new training year and for the struggle to raise vigilance and combat readiness, and the broad initiation of socialist competition for a worthy greeting for the 27th CPSU Congress.

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ARMED FORCES

SHORTCOMINGS IN WORK OF VLADIVOSTOK MILITARY COMMISSARIAT

Moscow KRASNAYA ZVEZDA in Russian 15 Nov 85 p 2

[Article by Capt 1st Rank Yu. Timoshchuk: "It's Not Words Which Are Needed, but Actions"]

[Text] A commission worked literally on the eve of the election meeting of the communists of Vladivostok city Soviet's rayon military commissariat. In which regard, the second in a short time segment. Just as formerly, serious shortcomings were again disclosed. It would appear that this fact itself should already have given the meeting a special atmosphere and attuned the people to a self-critical, exacting conversational tone.

But here the accounting report of the party organization's deputy secretary (the secretary had departed for a new place of service), Captain V. Konshin, was heard. The report was not distinguished by a deep analysis and devotion to principle in evaluations. The presentations of communists were similar to it in all respects. Captains I. Baranovskiy and S. Moskalev and Warrant Officer [praporshchik] Yu. Lutsenko went to the rostrom, it appeared, with a single goal: to tell about the functions of their departments and enumerate what their personnel are presently working on.

But you see, there were things to talk about seriously and thoroughly. The spectrum of actions of the military commissariat's communists is broad. This includes preparation of worthy replacements for the Armed Forces, cooperation in the solution of this problem with party, soviet, and Komsomol organs and DOSAAF organizations, and intensifying military-patriotic indoctrination and concerns for veterans of the war and the Armed Forces....

They spoke of this in general. But how? In the report and presentations there was no shortcoming of loud appeals and energetic phrases concerning the necessity to restructure the work style, improve discipline and organization, raise the personal responsibility of the communists for the quality of labor and authority of the party member, and display sensitiveness and attention to people.

But nevertheless, these were only phrases which were uttered to stress: they know the contemporary requirements and they are also working in the spirit of the times. But there was a large distance between words and actions.

Judge for yourself. As has already been stated, commissions were frequent visitors to the military commissariat. And not with planned checks, but with the analysis of complaints about the officers of the military commissariat. They checked reports of negative aspects in the work style of officials and of inattention and indifference toward people. By the way, I had with me a letter from a war veteran and a first-group invalid, Senior Lieutenant (retired) V. Guis--a person who lost his sight. The letter told of rudeness, callousness, and arbitrary actions of the military commissariat's officers. Summoned by call-up papers signed by Captain Konshin his son, who has who has a deferment from call-up, received a haircut right there, in the military commissariat (what haste!) and was sent to the kray draft assembly point. They did not even give him the opportunity to settle accounts at his place of work, to be crossed off the Komsomol register, and solve the problem of being discharged. "At 17 years of age I departed for the front as a volunteer from this same military commissariat. But at that grim time I saw a different attitude toward me," the author stressed.

Let me note at once that the criticism addressed to the military commissariat was correct. The veteran's complaint was confirmed. A competent commission was engaged in checking it. Here is what it established: "The call-up of M. V. Guis was accomplished by personnel of the military commissariat with a major violation of the Soviet law, 'On the universal military obligation,' and the rules for sending draftees to the troop units."

Now, in accordance with a special decision Private Guis has been released to the reserve. The military commissar, Lieutenant Colonel A. Malyutin, and the chief of one of the sections of the rayon military commissariat, Captain Konshin, have been strictly disciplined.

It could have been expected that a principled evaluation of what had happened would be given at the meeting. But no one even mentioned this. Nor did they mention several other facts which illuminate the work of the military commissariat in a not very attractive light. Take, for example, the draftee (already former due to age) V. Saraykin for whom a military service record was written twice but its owner never appeared in an army formation although he was suitable for service. Here for several years already someone in the military commissariat has been concernedly protecting V. Bykovskiy from call-up, too. By the way, on the day when the son of the invalid V. Guis was hastily sent to the kray assembly point O. Bykov returned home from there just as hastily without any grounds....

Isn't that really why some of the participants in the meeting, who often had to give explanations to military lawyers concerning this, hushed up such facts which do not do honor to the collective?

Of course, it is difficult to talk about dedication to principle, self-criticism, and exactingness in such a situation and in an environment of almost mutual guarantee.

It would appear that an important question was raised in the presentations of Lieutenant Colonel A. Malyutin and Captain V. Muzychenko at the meeting--concerning an increase in the personal responsibility of each party member for the violation of established standards and rules. And this was written about in the

decision which was adopted. But besides--was it not for the sake of form? Because it is not clear how they will "increase responsibility" if the initial causes for the shortcomings are not disclosed and if even now those through whose fault they arose are not named at the meeting.

Neither the one giving the report nor those who spoke, in uttering words about increasing demandingness, responsibility, closeness to people, and attention to them even mentioned one document which, if it can be said in this way, graphically shows the quality of the collective's work. I have in mind the book of complaints and suggestions which is in the military commissariat. Leaf through it in preparing for the meeting, Captain Konshin, acquaint someone else from among the communists, and count how many sensible remarks and bitter complaints were expressed and, I am confident, there would be more than one occasion for a serious conversation and for an analysis of the content and effectiveness of the work style.

Not long before this I had a meeting with the military instructors of a number of schools. They expressed many criticisms directed toward the personnel of the military commissariat. They said: the military-patriotic indoctrination of the future servicemen is not only a concern of the school; the personnel of the military commissariat should also be interested in it, and meanwhile creative ties with them are very weak.

The meeting also overlooked this question.

Or how was it not possible to recall the notion of them, the officers of the military commissariat, among the people of the rayon. And neither is this an idle question. Moreover, it is a paramount question. Because their service and work have their own specific character. People come to the military commissariat not only to be registered or to be dropped from the register. Here, in essence, the youths are acquainted for the first time with what a military organization is, the attitude toward a person in the army, and the style of work with people. Veterans and servicemen's family members come here. And for the military commissariat this is again, if you will, a test of public opinion. For it represents the Armed Forces.

But as both the people's complaints and the data of checks show, a sense of responsibility for the work on such an important sector has been blunted among many. And here is literally the last straw. How else can we evaluate the deed of communist Captain Konshin who, having received a letter from the war veteran, V. Guis, with a request to visit him at home and become acquainted with the living conditions never found the time to meet with the invalid.

In our country today important measures are being accomplished in improving work in all spheres of public life. Each line of the draft of the new wording of the party program and the draft of the CPSU Regulation with proposed changes which are now being widely discussed is also directed toward this. It is required of the communists that they be pioneers and leaders in accomplishing the turn toward new work quality.

And here, unfortunately, discourses on restructuring and the necessity to be equal to the occasion, struggle actively against negative phenomena and indulgences,

and display sensitiveness and attention to people left the impression of conversations on an urgent subject which do not oblige anyone to anything. It is believed that the communists of the rayon military commissariat have something to ponder here. And not only they, but also the leadership of the kray military commissariat. A remarkable feature. The kray military commissar, Major General V. Strukov, reported in response to V. Guis that all the officials who illegally called his son to the army would be held accountable to the party. In a similar reply a month earlier he stressed that "Captain V. N. Konshin is already being held answerable to the party for rude and tactless behavior...."

As we see, strong measures. But only on paper. It has now been learned that no one was ever made answerable to the party for this unusual case. Here, too, words were uttered too lightly. Is not one more reason for the state of affairs in the rayon military commissariat concealed in such a "lightness" of attitude toward worthless work methods and in a position of all-forgiveness?

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ARMED FORCES

PROBLEMS IN IMPROVING LIFE OF TROOPS

Moscow KRASNAYA ZVEZDA in Russian 17 Nov 85 p 2

[Articles: "The Rear Services--A Combat Concept"; a collection of four articles by authors as indicated]

[Text] The words presented in the collection of titles published on the eve of the Army-Wide Conference on Improving the Life of the Troops unite it only thematically. They reflect primarily the importance of the tasks being accomplished by the units, subunits, organizations, and enterprises on which reliable rear area support of the troops depends.

Motor Transport Into Afghanistan

[Article by Col A. Shabashov, Limited Contingent of Soviet Troops in Afghanistan: "At the Head of Vehicle Columns"]

[Text] The communists of the Nth Motor Transport Unit arrived at their election meeting, one can say, from various regions of Afghanistan. And this is understandable. They are accomplishing their international duty here. The motor vehicle personnel must deliver cargoes to the most remote corners of the fraternal country: fuel, food, and ammunition. In which regard, often at a great risk to life.

And so it was this time that again there were sharp hairpin turns in the mountains, clouds of snowy dust raised by the gusty "Afghan," and bandits firing at vehicles. The vehicles in which the column commander, Lieutenant Colonel O. Zavadskiy, the secretary of the unit party buro, Captain M. Vinnikov, and others who accompanied them travelled were marked with bullet holes. However, the cargoes were delivered to the indicated area exactly on time.

Naturally, in the foreground of the report by Captain Vinnikov and in the presentations of the communists there were questions of combat readiness, strengthening organization and discipline, the tactical competence of the officers, and the decisiveness of the personnel's actions. And the approach to this was precisely from positions of party work. Referring to the party's contemporary requirements, those who spoke at the meeting stressed that it is necessary to improve methods

of party influence on the accomplishment of all the complex tasks facing the unit. And, they said, the personal example of the communist is especially important.

The political officer, Major V. Melnikov, presented the following fact. When moving through the Salang Pass the column of vehicles came under the fire of the Dushmen. The bandits succeeded in cutting several MAZ trucks from it. A member of the unit party buro, Warrant Officer S. Alchikov, arrived in time to help fighting comrades who found themselves in a difficult situation. He organized the repelling of the attack, then quickly eliminated the damage in one of the vehicles under enemy fire, and drove the vehicle to a safe place.

Criticism was also heard at the meeting. Directed at several communists, it was said that they are not always active in political indoctrination work, weakened attention to their professional growth, and did not display proper concern for economic indices on the assigned sector.

The next day, many communists took off on long trips. They were again at the head of the vehicle columns.

Attitudes Among Railroad Troops

[Article by Maj A. Soroka, Eastern Sector of the Baykal-Amur Main Line Railroad: "A sense of the Forward Edge of the Battle Area"]

[Text According to their affiliation, railroad troops are rear services troops. But when you turn to the difficult times of the Great Patriotic War, here is the feeling which you get: in the broadest sense, the deeds of these troops are combat deeds. We who began on the BAM [Baykal-Amur Main Line Railroad] from the first stakes also had this feeling.

True, other faint notes can also be caught in the psychology of those who are now arriving here to serve: all the main things have already been done, and the work is humdrum. So to say, nothing unusual. This problem, I believe is typical to some extent for rear services units and subunits. Some draftee already makes up his mind beforehand: well what kind of service is this--repair, delivery, support; what a pity, he says, that I did not land in aviation, in the missile troops....

The notion, of course, is incorrect. But it exists. This is why at a party election meeting in a technical railroad battalion a large place was occupied by questions of instilling professional pride in the men. The one who gave the report, Captain A. Dedov, Lieutenant Colonel A. Pirozhenko, Captain L. Yuzva, and other communists spoke of this.

A sense of pride, they noted, is molded not only by indoctrinational measures. The very tenor of the battalion's life, its full-bloodedness, and high level of organization and discipline raise the attitude of people.

And here is one other thing we discussed. People work with special enthusiasm if we sense a spirit of contemporaneity in the collective. In this connection, the communists noted, in particular, how important it is for ideas of accelerating scientific and technical progress to find their reflection in our deeds, too. And this should be manifested in the intensification of production, a reduction in manual labor, an improvement in work style, and the expansion of innovation. The presently low style of production in shops and shortcomings in innovational work were criticized.

Military Trade Services

[Article by Col (Res) I. Primenko, Urals Military District: "Don't Get Accustomed...to Stagnation"]

[Text] Customers often reproach me, the chief of the domestic services combine of the district's trade directorate: it is impermissible, they say, for it to take a long time to have a uniform sewn in our tailor shop. I have to apologize and...spread my hands.

In recent years the number of orders has increased significantly, and the tailor shop, as formerly, is located in a cramped, somehow adapted room.

So many times, already, we spoke of urgent problems at party meetings and placed them before the trade directorate. Verbally they support us there, but there are no specific improvements. At the election meeting which we had, in the report of the secretary of the party organization, A. Laptevaya, and in the presentations of the best workers, communists A. Perunova, V. Bogatyreva, M. Bushmanova, and others the question was again heard: just when will the urgent problem be solved?

I often ponder over this fact. In our life and in our work there are areas where nothing changes for years. Isn't it because, first of all, they are looked upon as something secondary. Isn't it because the habit of stagnation makes itself felt?

If we take our case, basic measures are needed for the matter to begin to move. The communists proposed them as far back as five years ago. This was the basic proposal--create branches of the combine.

In the Sverdlovsk Higher Military-Political Tank-Artillery School, after long "talks" they met them half way. They allocated premises for a branch of the combine. And the benefit was felt at once. Economists estimated that this will permit the school to save approximately 8,100 worker hours in one year alone.

We never encountered such mutual understanding in other units.

Billeting Services: Heating

[Article by Lt Col M. Ziyeminsh, Volga Military District: "Why Do They Get Away with It?"]

[Text] During the days when the communists of the area KECh [barracks services branch], where the chief is Lieutenant Colonel I. Poludentsov, were preparing for the election meeting, two articles on a common subject appeared one after the other in the district newspaper ZA RODINU. Their essence was the following: with the onset of cold weather, in some residential buildings and service preises which are on the balance sheet of this KECh the temperature is seldom normal. The situation is quite alarming in the kindergarten of the military post.

The newspaper expressed alarm concerning this. In which regard, this is no longer the first autumn and winter when such criticisms have been heard but, as we see, the shortcomings are being repeated.

However, this acute subject was not touched upon at all either in the report of the secretary of the party organization, employee of the Soviet Army M. Feshchenko, or in the presentations of the communists. The impression was even created that the problem doesn't seem to exist. In essence, the conversation came down to a discussion of secondary matters. Sharp corners were avoided. But you see, it is precisely through the fault of personnel of the barracks services branch that preparations for the heating season were not conducted completely.

The sense of responsibility for the assigned work sector was blunted in some communists. And one of the residents of a house within the jurisdiction of this KECh spoke correctly on the eve: "It's as if some services treat us as second rate. Here I answer with my head for the combat readiness of a subunit, and there they quite often get away with murder...."

I believe that each one supports the thought of the communist's special responsibility, wherever he may work. It runs through the pre-Congress party documents.

Meanwhile, it has also been noted that the communist-leaders of this organization try to dump their own shortfalls on others and sometimes display amazing unscrupulousness. Here is some proof. Three new houses were recently built on the territory of the area. Outwardly they appear attractive, but they were accepted for operation with serious imperfections. The signature of the chief of the KECh, Lieutenant Colonel Poludentsov, also appears in the statement of the commission which accepted the house. New complaints of people, one can say, have already been programmed....

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ARMED FORCES

EDITORIAL ON IMPORTANCE OF LEGAL EDUCATION

Moscow KRASNAYA ZVEZDA in Russian 7 Dec 85 p 1

[Editorial: "Legal Education"]

[Text] Soviet laws... Expressing the fundamental interests of the people, they serve to develop and expand socialist democracy, enhance the state of organization and discipline in all spheres of public activities, and strengthen the principle of social justice and the standards of communist ethics and morals. As is emphasized in the draft of the new wording of the CPSU Program, strengthening the legal basis of state and public life was and remains a subject of special concern for the party. Life requires a further increase in citizens' awareness of the law and an improvement in their legal education. Every Soviet must be thoroughly aware of the unity of his rights, freedoms, and responsibilities, know and strictly follow the institutions of the socialist people's state, and be an active champion of lawfulness and law and order.

In the Army and Navy, legal education of personnel is an integral part of all ideological and political and educational work. It includes mastery by service members of the necessary legal knowledge as well as developing in them a conviction always to act in accordance with the requirements of laws, the military oath, and military regulations. At the basis of this work are the propagation and explanation of Leninist ideas on the state and law and protecting the socialist Fatherland, CPSU documents on questions of strengthening lawfulness and law and order, specific statutes of the USSR Constitution, and other legal acts. Regulations clearly define the organization of this work in a unit or ship; it is the duty of every commander and supervisor to engage in legal education of subordinates on a daily basis.

The crew of the nuclear missile submarine commanded by Capt 1st Rank V. Ivanov worked hard this past training year. Today the submariners are initiators of socialist competition in the Navy in honor of the 27th CPSU Congress. The sailors justifiably link their successes achieved and confidence in the future with exemplary order on the ship, crew teamwork, and with the fact that every crew member knows his responsibilities and strictly fulfills them. This has been made possible largely due to proper legal education of sailors. One can cite many military units, educational establishments, organizations, institutions, and enterprises where properly organized legal propaganda and

education of personnel in the spirit of absolute observance of the letter and spirit of the laws contribute to strengthening daily order and successful completion of all tasks.

Unfortunately, in a number of units (soyedineniya, chasti) the case is somewhat different. Legal instruction and education at times lack a systematic nature, are not organically linked to the tasks which the service members carry out, and do not take into account the real situation in military collectives. Many of the people who undertake to explain certain statutes do not have a firm understanding of them themselves and are unable to inform the students about their social, moral, and practical importance. Irregularities in organizing duty, training, everyday activities and relaxation of personnel have not been overcome. Certain commanders do not react or react incorrectly to offenses by subordinates, and then try to conceal them. Such cases were discovered in the motorized rifle regiment which, until recently, was commanded by Lt Col S. Kanishchev. It is necessary to demonstrate more firmness and consistency in struggling with such phenomena, increase the effectiveness and quality of legal education of service members, and strive to see that this work has an active influence on strengthening discipline and good organization.

Above all this involves increasing the legal culture of officer personnel. It cannot be tolerated that some officers have a poor knowledge of regulations and documents defining service by subordinates, providing them with various types of allowances, and their disciplinary and material responsibility. Neither can we put up with attempts to interpret a law or regulation as one sees fit based on what seems "expedient" and misunderstood "interests of the service." We must make more active use of classes in the system of command training and Marxist-Leninist training, schools of legal knowledge, practical scientific conferences, seminars, and interviews for legal instruction and education.

Much depends upon the effectiveness of monitoring the state of lawfulness and law and order and the organization of legal education in units and on ships on the part of superiors, political organs, and staffs. It is bad when some supervisors and inspectors do not properly assess violations of the daily routine, slipshop execution of duties by individuals on the 24-hour duty team, unkempt outward appearance of service members, or their unauthorized addressing of one another. One must not forget that the situation of lawfulness and firm prescribed order is a key factor in developing the correct legal views and convictions in service members. The reverse is also true: Where talk about laws and regulations is not reinforced with practical work to fulfill their requirements and where so-called "minor" infractions of order and rules of military service are indulged, the way is being paved for more flagrant violations.

The role of military lawyers play a great role in propagandizing legal knowledge and eliminating negative phenomena from the life of military collectives. Their task is to identify and carefully analyze the causes and conditions contributing to offenses, discover their legal essence, and equip commanders and political workers with methods of explaining specific legal statutes and preventing subordinates' offenses. Commanders and other

officials are obligated to respond on principle and in time to the representations of judge advocates and investigating officers and the particular decisions of military tribunals.

It is necessary to make wider use of cultural and educational establishments, press, radio, and television in the interests of legal education. It is important to involve the legal aktiv of units and garrisons in this work and increase the role of the Army and Navy public opinion, especially Komsomol meetings and personnel meetings, in the struggle against digressions from regulation requirements and negative manifestations in the behavior of individual service members.

Legal education is an important means of developing the personality of the Soviet soldier-citizen. Commanders, political organs, staffs, military lawyers, and party and Komsomol organizations are called upon to accomplish it on a daily basis combined with political, military, and moral education and to strive for a steady increase in discipline and self-discipline of personnel as the basis of the high combat readiness of units and ships.

12567
CSO: 1801/80

ARMED FORCES

OBITUARY: V. P. SEMENTSOV

Moscow KRASNAYA ZVEZDA in Russian 19 Nov 85 p 4

[Article: Unsigned obituary]

[Text] The command and party committee of the Main Directorate of the General Staff of the Soviet Armed Forces, friends, and comrades announce with profound sorrow the death of a member of the CPSU since 1958, Captain 1st Rank Vladimir Petrovich Sementsov, and express condolences to the relatives and friends of the deceased.

6367
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ARMED FORCES

BRIEFS

FEBRUARY 1986 EXERCISE ANNOUNCED--During the period from 10 to 17 February 1986 on the territories of the Baltic and Belorussia in the region of Kaliningrad, Baranovichi, Polotsk, Riga and in the southern part of the Baltic Sea a staff, troops and naval forces exercise will be conducted. The exercise os to be carried out with the mission of improving staff training, the combat training of troops and the working out of questions of the command and control of troops and naval forces. Combined units and units of the various services and branches of the Armed Forces to around 50,000 men are to be involved in the exercise. [Text] [Moscow IZVESTIYA in Russian 18 Jan 86 p 6].

GROUND FORCES

ROTMISTROV'S 'STEEL GUARD' REVIEWED

Moscow PRAVDA in Russian 20 Nov 85 p 6

[Article by A. Yegorov, "Pravda" stringer, Kalinin Oblast: "At the Village of Zabolotye"]

[Text] The memoirs of Chief Marshal of Armored Troops P. Rotmistrov, "Steel Guard," present the story of an incident which occurred during the Battle of Moscow.

"A four-gun enemy antitank battery immediately opened fire on our tanks from the outskirts of the village," Rotmistrov writes.... "One of the tanks rushed forward.... Observing this tank, we saw it pass through the firing positions of the antitank guns and then turn somewhat to the left and, leaving the eastern outskirts of Zabolotye behind, take cover.

"What happened to it?" we were puzzled. Only later, when Zabolotye had already been left behind, did our technical service discover the tank in the depth of a forest set against a thick birch. The hull of the vehicle was crippled by shells. The dead driver-mechanic was found at the control levers.

"What would seem to be the improbable had occurred. As was learned later, during the attack the tank of Lieutenant M. Frolov had been hit by an enemy shell which fatally wounded the driver-mechanic. Evidently with his last, already convulsive motion the driver sharply increased the engine's revolutions. Lightly wounded Lieutenant Frolov and the gun commander managed to jump from the tank which, with its powerful engine roaring, bolted forward and instilled horror among the Hitlerites. The commander of the German battery shot himself and the crews were run down together with the guns."

The name of the tanker hero remained unknown for more that 40 years. And here it was established. The place of his burial was also found. The lid of the forward hatch of the formidable machine whose levers were not released from the hands of the fearless warrior even after death was discovered.

This addition to Rotmistrov's book was made by the pathfinders of the Zavolzhskaya Secondary School of Kalinin Oblast. The school's "Poisk" [Search] military-patriotic group has, for several years already, been collecting materials on the 8th Tank Brigade which took part in the smashing of the Germans at

Moscow and the liberation of Kalinin Oblast from the fascist aggressors. The youngsters succeeded in establishing ties with 56 veterans of the brigade. Found among them were former soldiers who, with their own eyes, saw the last battle of the very tank about which Rotmistrov wrote.

The schoolchildren rode to the field of the exploit with excitement. In Zabolotye the youngsters met with local residents who also were witnesses to that memorable battle and supplemented the story of the veterans with details. A. P. Smirnova, who worked as chairman of the ispolkom of the local rural Soviet, recalled that many years ago a letter reached the rural Soviet in which tankmen were interested in the condition of their combat comrade's grave. They gave his rank, last name, first name, and patronymic: Private First Class Aleksandr Denisovich Lopukhov. The description of the battle, the place of the tankman's temporary burial--everything agreed with available documents and the stories of eyewitnesses. This was also confirmed by the Klinskiy city military commissariat.

Now no doubts remained--the exploit described by Rotmistrov was accomplished by Aleksandr Denisovich Lopukhov who was born in 1920.

Now the hatch lid of the formidable T-34 combat machine is being kept in the school museum next to the book "Stalnaya gvardiya" [Steel Guard] in which the exploit of the henceforth no longer unknown hero is told.

6367
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AIR/AIR DEFENSE FORCES

LT GEN KOROLKOV COMMENTS ON RESULTS OF SOCIALIST COMPETITION

Moscow KRASNAYA ZVEZDA in Russian 12 Nov 85 p 2

[Article by Gds Col A. Tsarkov, commander of a bomber regiment, and comments by Lt Gen of Aviation B. Korolkov, first deputy commander of the Air Force: "The Effect of a Search"]

[Text] The Guards Red Banner bomber regiment which was the initiator of socialist competition in the Air Force accomplished its obligations and won the title of excellent. The average grade for the basic types of combat training was: aerial navigation--4.65, bombing--4.62, and missile launching--4.7. Forty-two efficiency suggestions were submitted and the time to bring the regiment to combat readiness was reduced by five percent. Eighty-six percent of the men became rated specialists.

The regiment's success was furthered to a great extent by the initiative and creative attitude of the aviators toward the matter. This is discussed by the commander of the air regiment, Guards Colonel A. Tsarkov. We also requested the first deputy commander of the Air Force, Lieutenant General of Aviation B. Korolkov, to express his opinion of the initiators.

The training year which was concluded was very strained for the flyers of our regiment but, at the same time, it was also very interesting. The status of initiators of socialist competition in the Air Force made each of us work more actively and more purposefully.

Among the best organizers of the competition I can name Guards Majors P. Androsov, R. Saberov, N. Titov, and many others. I could mention various successes and achievements, of which we have many, but now it is much more important and necessary to look at the matter from another aspect: that for the present things have not been done or not been completely done as we should like, what were our errors, and what reserves have not yet been used? This is necessary for successful combat training work in the future.

I will begin with the fact that it was far from the first days of the training year that we succeeded in creating in the collective a common attitude toward the creative search for ways to improve work and toward a high sense of responsibility for the results of each day of combat training and each flight.

Individual officers, for example, Comrades V. Lemesov, V. Davydov, V. Abramov, and Ye. Polezhayev, could not immediately overcome a certain complacency due to past successes and did not understand completely that the special position of the initiator regiment also requires them to work in a special manner with the maximum straining of strength. There were cases of the suspension of pilots, especially from among the young ones, from flights due to insufficient personal preparedness. By a unit order, some fliers were dropped from the experts. Organizational measures reinforced by indoctrinational work forced those who did not work at full strength and in the old way to become thoughtful.

Considering that today the party is devoting fixed attention to making the initiative of the masses more active, this question was taken under special control in the regiment. The initiative and creative approach to the matter by the best technical sections, which are headed by Guards Senior Lieutenant S. Belykh and Guards Chief Warrant Officer V. Anishchenko and many others, permitted them to achieve high results. To a great extent, it is thanks to their search that the times for bringing the regiment to combat readiness were reduced. However, this is not the limit. For example, questions of accelerating the suspension of ammunition, improving the process in the accomplishment of prescribed maintenance work, and several others await the solutions of the specialists.

Work was constantly conducted on instilling in the men a thrifty attitude toward material resources. An improvement in the technology for servicing equipment and an improvement in professional skill permitted saving 3,420 kilowatt-hours of electric power and about 700 tons of fuel. The savings in other directions comprised several tens of thousands of rubles.

I especially want to stress: the fact that the regiment accomplished the obligations which had been assumed with honor is to the great credit of the party-political apparatus. The deputy regimental commander for political affairs, Guards Lieutenant Colonel I. Losenkov, skillfully helped to direct the communists toward seeing that they were the pioneers of good deeds and were at the point of advanced undertakings. The unit's party committee headed by Guards Lieutenant Colonel A. Shershnev worked with initiative. To increase personal responsibility, leader-communists were regularly heard at sessions of the party committee; six of them were made answerable to the party for various types of omissions and the insufficient striving to develop and maintain the initiative of subordinates.

And nevertheless it should be acknowledged: the party organization did not do everything possible to create an atmosphere of search in the regiment, to raise the activity of the personnel in the further strengthening of discipline, and to increase flight safety and, in the end, the regiment's combat readiness.

In short, the regiment's personnel do not delude themselves with what has been attained. We know our bottlenecks, see unused reserves, and are filled with the resolve to put them into operation in the new training year.

Guards Colonel A. Tsarkov

Comments by the First Deputy Commander of the Air Force, Lieutenant General of Aviation B. Korolkov

Taking part in the conduct of the concluding checks, in one of the aviation large units I asked the officer-leaders what they know of the state of affairs of the competition leaders and how they should be followed. No clear response followed.

However, I cannot blame the unit commanders; here it is rather we ourselves who are guilty because we did not make the experience of those going forward the property of publicity. Also including experience in questions of making the search more active, the initiative of the fliers, and the restructuring of all work in the new manner as the time requires today. And there really is something to learn from the regiment which is the initiator of the competition; this is shown by the results of the concluding checks. For example, work with the young commanders of crews, the training of future commanders, and so forth are well organized. But the study and propagation of experience also requires a creative approach and the search for new forms. It cannot be permitted that the role of the competition initiator, as sometimes happens, is reduced to its accomplishment of the obligations which have been assumed alone. Its experience should remain in operation and should assist all fliers to achieve high results in combat training in the new training year.

However, despite the fact that the regiment coped with the tasks assigned to it rather well, an attentive glance at the state of affairs permits drawing the conclusion that many unused reserves remained with the unit's personnel and some things could have been done better and with smaller expenditures of forces and resources. As is also noted by the regimental commander, for example, such a powerful lever as party influence on increasing the personal activity of each communist and of each Komsomol, officer, warrant officer [praporshchik], and soldier was not used to the utmost.

The mastery of contemporary equipment and maximum use of the capabilities placed in it are unthinkable without technical creativity and without the striving to make one's contribution to the improvement of various systems. Many officers took an active part in this work; however, for some reason the regiment's party committee did not once examine this question at its session. And that is why some of the specialists did not take an active part in technical creativity which was directed toward raising combat readiness.

It is not by chance that at election meetings the communists said that the mobilizing strength of competition was not completely used in the unit and that a genuine spirit of competition was not always present in all subunits, either. The Komsomol initiative, "Each flight shift with a grade of excellent for the 27th CPSU Congress," was not sufficiently reinforced by practical deeds and there were not always strict demands made even on those Komsomol members who were deprived of the title of expert, that is, they did not accomplish their personal obligations.

Analysis of leading experience was frequently replaced by a simple statement of the achievements and results of the leaders' labor. And why these results became possible and how and and at the expense of what they were attained--this

was not taken into consideration. To propagandize the experience of the leaders in the contemporary manner means supporting the innovators in every way, disclosing the nature, content, and style of their work deeply and thoroughly, convincing everyone of its value and accessibility, and then monitoring its introduction.

In the troop collective, it is especially important to maintain an atmosphere of high exactingness and irreconcilability toward complacency. Each officer and soldier should always be combat-attuned and profoundly recognize his lofty purpose--to be in constant readiness for immediate decisive actions in the accomplishment of his military duty to the motherland. The high level of consciousness and active position of the servicemen are the basis of their creative attitude toward the matter. Such an attitude is instilled and inculcated by the painstaking work of commanders, political officers, and party and Komsomol organizations. In the regiment which was the initiator of the competition much has been done on this question, which also permitted achieving a significant growth in the rating qualifications of flight and technical engineering personnel. And this is directly connected with raising the combat skill of the fliers.

At the same time, familiarity with the organization of the officers' independent work, for example, shows that the personal combined plans for raising the ideological-theoretical and professional-duty preparedness of the officers are frequently similar to one another, stereotyped, and do not reflect the individual features of the personality and the service category of various flyers. The subjects of lessons often are rewritten for a grade, and not with the sight on the further growth of combat training. This means that for the present in the regiment there is no proper system for checking the course of the officers' accomplishment of individual assignments.

The results of the combat training of the regiment which was the initiator of the competition could be even higher and achieved with smaller expenditures of forces if assistance on the part of higher headquarters were more specific and purposeful, especially in questions of the tactical training of the officers of the unit's leadership element. Unfortunately, the tactical training of some of these individuals does not meet the requirements imposed by the Minister of Defense and the commander of the Air Force for this reason today. Such forms of training as tactical quickie exercises, classroom-group lessons, flight-methodological conferences, and tactical-flight exercises are not used with sufficient effectiveness. But you see, they are very important since they stimulate people for creativity. And these reserves could be put into action at full power with the assistance of officers of higher headquarters.

Nor has everything been done here in the question of saving material resources. In particular, cases occurred in the regiment where missions were not accomplished with the first pass, airplanes were returned to the hardstand by the technical check point from the holding take-off position, and fuel was consumed in the air for the sake of accrued flying hours. Each minute of flight can and should have been used with a great return through improvement in the planning of flight shifts and the combining of individual exercises in combat employment.

I consciously concentrated attention on those problems which had not been completely solved even in the leading regiment. No one will take our achievements

away, but then it is undesirable to carry flaws, underfulfillment of tasks, and errors along into the new training year. All the more since the majority of them are also inherent in several other regiments to one degree or another. We do not have the right to be satisfied with what has been attained; therefore, today no one can work listlessly, in a slipshod manner. In the draft of the new wording of our party's program it is said: "The party links the successful accomplishment of the planned tasks with an increase in the role of the human factor." This program line should be perceived by each one as an instruction for him personally. It is necessary to unfold the front of pre-congress competition to the full so that, entering the new training year, imperfections are eliminated. It is our duty to greet the 27th Congress of our party with high indices in combat training and a good creative attitude in work.

6367
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AIR/AIR DEFENSE FORCES

DISCUSSION OF TRAINING OF PVO RADAR TRACKING UNIT

Moscow KRASNAYA ZVEZDA in Russian 12 Nov 85 p 1

[Article by Lt Col V. Pominov and Maj V. Sekhin: "When the Storm Raged"]

[Text] From the squeak of the antenna braces Major S. Mikhaylyuk understood even without a weather report--a storm is in the offing. On the one hand, he could be at ease--the "enemy" will not decide on a raid in such weather. But exercises were under way, and intuition suggested something else to Major S. Mikhaylyuk. He pondered almost aloud: The "enemy" is not idle, and it cannot be excluded that he will try to exploit the complexity of the situation; that is why it is necessary, as they say, to look at both options.

Closing the door tightly, the officer sat in a chair in front of a scope and looked at his subordinates fixedly. Reliable people although different in both age and length of service. Communist Warrant Officer [praporshchik] N. Malko is a master of combat qualifications. He knows the station, as is sometimes said, better than himself. But this true specialist is valuable not only for the store of knowledge which he has, but also for the ability to transmit it to others. The more the teacher repeats himself in his pupils, the higher his authority. Warrant Officer Malko understands this perfectly.

Side by side with him is Private Kh. Veliyev. The soldier is young, but he knows his business. It is felt that it is a school for him.

And the wind was violent as formerly, and it changed direction during something like half an hour. But this did not make things easier for the radar operators, for the main thing for them is the wind force, and it was high. And, perhaps, therefore the entire section worked under stress at the control post and each specialist was self-collected as never before. It seems that the equipment is also a match for the people--it "breathed" heavily under load and the small lights of the check lamps winked alarmingly at each other.

The "enemy" did not make himself wait long. Private Kh. Veliyev discovered a group target at maximum range.

"Target number ..., group," he immediately reported to Major Mikhaylyuk.

The officer instantly gave the order to send the data to the higher command post and he ordered Junior Sergeant I. Kondrachuk to track the target. Two small

palish arcs moved at the edge of the screen far from entry into the killing zone. It was clear--the "enemy" is beginning to use cunning. Here, they say, I have everything in view. The operators are self-collected and ready for everything.

Junior Sergeant I. Kondrachuk did not feel the leather weaving of the headset on his head--all his attention was riveted on the blips. Especially on the small white spot which became blurred with each circle of the sweep. And suddenly it dissolved completely, as if it didn't even exist. Again the search. In one square, then another. The opposing side undertook maneuver.

A jammer appeared. The screens are clogged with active jamming and chaff. The radar operators learned to combat it. Several units of the equipment began to operate and literally in seconds they saw that all targets were clearly looked over on the luminous screen of the scope. Yes, it was not for nought that the radar operators improved their skill so persistently during the training year and studied the capabilities of the radar complex and the tactics of engaging the aerial enemy. The men acquired the experience of engaging high-altitude, high-speed, maneuvering low-flying targets on lessons and drills....

Each time Major Mikhaylyuk created an unusual and unique situation using a simulator. On the screen, let us say, three targets appeared in the first group. The operators expected a broad maneuver, but the group turned and lay on the reverse course. The radar operators concentrated their attention on this and... they missed a target from the opposite direction and did not notice that one of the airplanes separated, descended, and rushed toward the objective at low altitude. In this case, a detailed analysis of the drill followed and the next day a dynamic situation was again created. And this way every day.

On the lessons Major Mikhaylyuk and Warrant Officer Malko saw to it that the specialists had good knowledge of the performance data of the "enemy's" airplanes and their combat capabilities and learned to determine the type and number of airplanes from the configuration of the blips and to guess the start of the aerial "enemy's" maneuver from their displacement and "habits."

It is not by chance that on the check exercise the radarmen discovered and tracked targets, sending accurate data on them to the missilemen.

And all this time the wind raged above the sea and coast....

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AIR/AIR DEFENSE FORCES

MAJORITY OF FLIGHT INCIDENTS SAID CAUSED BY HUMAN ERROR

Moscow KRASNAYA ZVEZDA in Russian 15 Nov 85 p 2

[Article by Mar Avn P. Kirsanov: "It Begins with Discipline"]

[Text] A military transport aircraft piloted by a crew under the command of Captain O. Romanenko returned to its "point" from an intermediate airfield. Hurriedly becoming familiar with the weather along the route--places long familiar--the crew took off, and when they began to come out on the assigned air route, the pilots discovered a wall of thunder clouds which extended as a front across the route. The Instructions for the Crew and the manual on flight performance--that wise flight regulation for all cases in the life of aviation--categorically prohibited entering thunderstorm cloud cover.

"Perhaps we can slip through," Captain Romanenko turned to his co-pilot. "Or someone else is thinking: they were afraid of clouds, they say...."

They did not slip through. Several minutes of flight in the thunderstorm cloud cover proved sufficient for very heavy hail and icing to damage the oil cooler assemblies of three engines. Thus, due to failure to observe the elementary requirements of flight discipline a highly-rated crew placed itself at the edge of a serious flight accident.

Flight discipline.... Unfortunately, not all aviation commanders and political officers, officers of staffs and various services, regular pilots, navigators, and flight technicians devote necessary attention to its maintenance. At times there still is no clear monitoring of the observance of flight rules and flight laws or the proper damand made of violators. But you see flight discipline, which is directly dependent on the state of military discipline in the unit, subunit, or specific crew, is the most important condition for the aviators' safe work in the air and the guarantee of the successful accomplishment of training combat missions, a growth in skill, and high combat readiness.

The detailed consideration and analysis of the preconditions for flight incidents shows convincingly that the majority of them occur through the personal fault of the flyers. A situation which leads to a threat to flight safety begins, as a rule, precisely with the insufficient state of discipline of a specific pilot, flight operations officer, or specialist who supports them.

The insufficient learning of the aerial fighter and insufficient experience in practical work are frequently called the reason for the precondition. But even behind these formulations stands a specific official who violated the requirements of guidance documents: the flight leader did not properly estimate the subordinate's level of training, the squadron commander trained the pilots under simplified conditions, and the regimental commander did not disclose these shortcomings in good time.

By the way, by itself experience still does not guarantee reliable flight safety. Many instances are known where even first-class pilots found themselves in a difficult situation on a flight element which, it would seem, had been worked to automatism due to elementary personal carelessness, that is, due to the violation of flight discipline: they lost speed on the pre-landing glide, exceeded the allowable bank, went into a spin on a turn, were late in applying rescue equipment, and so forth. There are clear recommendations on preventing such cases and on actions in each such situation, and only their neglect and setting hopes on an old store of knowledge led to trouble in the air.

The experience of the Great Patriotic War discloses the role of flight discipline in actual combat. It teaches that the most stable, long-term successes in combat work were attained first of all by pilots who possessed great endurance and discipline.

Let us take, as an example, the problem of the wingman in fighter aviation. The element leader sought the enemy, made the decision for maneuver, and organized the battle. The wingman was required to preserve the structure of the element come what may and ensure that the leader was covered from the rear hemisphere. This was difficult not only from the standpoint of piloting. Sometimes it was desirable, believe me, to leave the leader although only for several seconds and attack a fascist who had exposed himself to attack (as often happened later, intentionally)! But an immutable law of flight--to cover the leader--did not permit doing this. And thanks to discipline we preserved each other's life and defeated the enemy. Each pilot is obliged to instill such self-restraint within himself today in training flights; this quality does not come quickly.

At times, one can hear statements of individual pilots, especially from among those who are just beginning their service path, that flight discipline, they say, does not further the development of the activity and courage of the aerial fighter. This is an erroneous opinion. Self-control, organization, and undeviating observance of flying rules permit the young pilot to accomplish a large number of training exercises in the established time and, going from the simple to the more difficult, accomplish dozens of various training-combat missions which will help him to acquire experience which is in no way replaceable. And now on the basis of this experience, he can approach with intelligence and initiative those extreme situations which flying life at times places before the flyer, testing him. The sequence of exercises which become more complicated and which are envisioned by documents on combat training also contribute to the development of such a quality as initiative in the pilot.

In the course of the operation of each type of airplane and helicopter, as is known, their ever newer combat capabilities, for the use of which for the present there are no sufficiently specific recommendations, are disclosed. The

practice of tactical flight training, various exercises, and special flights permits finding methods for the employment of aviation complexes which are more expedient in comparison with those already known. The system for the regulation of flying work provides the opportunity to select and realize sufficiently effectively and completely the most interesting proposals. It is important that each flyer participating in this process strictly observe the principle: the pilot--reports, the methodologist--studies, the commander--makes the decision. Thus, recently many progressive methods for the employment of aviation in mountain terrain which were later employed successfully in the exercise "Kavkaz-85" were tested and legalized. Any deviation from this sequence, "ad libbing," and wilfulness are fraught with unfavorable consequences.

A special feature of today's combat training is the fact that aviation is used more and more actively in coordination with the other combat arms. Helicopters and vertical-takeoff airplanes take off into the sky from the decks of ships, combat helicopters support motorized riflemen from the air, and so forth. Because of these circumstances more and more responsible individuals who are not flyers receive the right to use aviation equipment, including both transport airplanes and helicopters, at their own discretion.

The seeming simplicity, reliability, and speed in delivering cargoes or people to indicated points in comparison with other types of transportation creates in some of them the illusion of the independence of such flights from obligatory elements dictated by flight rules: assignment of the mission, preliminary preparation and checking the readiness of the crew by the appropriate aviation commanders, and so forth. Flight laws are replaced by an imperious decision: "Take off quickly, and no talking!"

Instances occur where combined-arms commanders who have been given great authority actually compel the crew to perform intolerable actions in flight--they force them to descend below the established altitude and accomplish an unforseen maneuver. Sometimes, which is especially dangerous, they order giving up one of the work places of crew members: of the co-pilot or flight technician. For example, Major General A. Terentyev often removed one of the crew members from the cockpit of a helicopter, sat in his place, and issued instructions in flight which were in conflict with the requirements of documents which regulate the accident-free work of the flyers. Colonel V. Mizun also proceeded similarly many times. While flying over ground-force positions in a helicopter, he assumed the duties of pilot-operator and interfered in control. And when the pilots refused to violate the instructions, they were groundlessly punished.

Such commanders usually justify their actions by saying that the combined-arms commander should be able to operate any equipment which is at his disposal. The flight laws seem superfluous to them, and the special features of the flyers' work--artificially complicated. And here, without thinking of the consequences, they adopt volitional decisions and display wilfulness. The result of such an approach in the best case is the breakdown of the flight vehicle. Such commanders should be reminded once more: the flight laws should be known and respected by all to whom the use of aviation has been entrusted.

A high level of flight discipline in the unit and subunit is attained by the correctly set up and organized instruction and indoctrination of the flyers.

The role of the leader personnel's personal example is great here. The instilling of proper qualities in the pilots is unthinkable with a gap between word and deed among the senior comrades. Many hours can be expended on talks about the necessity for flight discipline and dressing-down of offenders can be organized, but if the commander himself provides a negative example for his subordinates in this question--there will be no benefit.

The indoctrinational significance of the correctly organized demand for violations of flight discipline is great. It should be strict, all-encompassing, but fair. An effective method for checking the work of the flyers in the air is the skillful use monitoring and recording equipment. Not one flight should be left without a detailed evaluation with its use. This helps to disclose in good time those who like to have a scornful attitude toward flight rules. And it is a great pity that individual flight commanders turn to recorder data only with hindsight, when the pilot accomplishes some coarse violation of flight discipline.

A reliable barrier against these and other shortcomings which hamper the struggle for a high level of flight discipline has been set up, for example, in the air regiment commanded by Lieutenant Colonel V. Bazvanov. When he took over the unit, serious shortcomings in this question were found there. In a short time Bazvanov was able to direct the flight personnel toward the absolute observance of the flight laws by relying on his deputies, staff officers, subunit commanders, and party and Komsomol organizations. He succeeded in achieving a situation where all commanders and political officers who personally accomplish flights are models of the accomplishment of flight rules. And this gives them the right to make strict and uncompromising demands of those who are negligent for any violation. Here they react to instances of the violation of flight discipline with the same devotion to principle with which shortcomings are considered in personal, domestic, and other aspects of the behavior of individual flyers on the ground. Special attention is devoted to young instructors as well as to flyers who overestimate their own flying abilities.

Soviet aviation needs disciplined pilots, staunch aerial fighters on whom their comrades in the combat formation can rely without wavering, and commanders who entrust to them the accomplishment of important missions. The indoctrination of such aerial fighters is the primary task of all commanders and political officers. It is the practical reply of the flyers to the concern of the party and the government for the Armed Forces and a contribution to the further increase in the combat capability of the Air Force in the new training year--the year of the 27th CPSU Congress.

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NAVAL FORCES

FIRST-STRIKE ROLE OF TRIDENT DISCUSSED

Moscow MORSKOY SBORNIK in Russian Nov 1985 pp76-77

[Article by Capt 2d Rank V. Kozhevnikov: "The Trident--A First Strike Weapon]

[Text] Immediately upon entering the U.S. Navy inventory (1960), American nuclear missile submarines (SSBNs) began playing a noticeable role in the scenario of a new world war. This was reflected in the first SIOP (Strategic Integrated Operations Plan for hitting strategic targets) which called for delivering nuclear strikes against 200 of the Soviet Union's largest cities.

Twenty-five years have passed. This is a somewhat insignificant period for history, but very disquieting: It is characterized by a sharp qualitative and quantitative leap in the arms race and the creation of dangerous situations in the world through the fault of the American ruling circles.

In October 1981 Reagan announced his "strategic program" for the eighties containing instructions for further building up the offensive potential. In a strategic nuclear war there are plans to carry out massive (unlimited) and selective nuclear strikes against the potential enemy's installations on his territory; only selective strikes are planned in a limited nuclear war. Four strategic strike variants were developed: surprise, preemptive,[1] retaliatory-encounter, and retaliatory strikes. This was done so that the top U.S. military and political leadership could select any of them to correspond to the situation.

The next plan for striking strategic SIOP targets and the list of objectives to be destroyed included already more than 40,000 targets. They were broken down into four categories: nuclear forces (intercontinental ballistic missile launchers, medium-range ballistic missiles, SSBN bases, airfields for aircraft carrying nuclear weapons, command posts); general purpose military installations (airfields, troop deployment areas, and so forth); political and military centers (command and control centers, communication centers); and economic installations.[2]

The United States had created a huge nuclear weapon arsenal to destroy these targets--more than 10,000 weapons.[3] More than one-half of them are located on SSBNs.

According to foreign press data, over 50 percent of the U.S. Navy's missile-carrying submarines are on constant patrol in the oceans of the world over an area of more than 14 million square miles.

The SSBNs patrol in secret at a depth of 30-40 meters and a speed of several knots. It is believed that the low level of noise and the secret mode of operation make them practically invulnerable to enemy antisubmarine forces. The patrol time for each missile submarine is 68-70 days, during which it almost continuously maintains a readiness for immediate use of its nuclear missiles.

The Ohio-class SSBN carries 24 Trident I missiles. Each one has 8-10 nuclear warheads with a yield of 100-150 kilotons. All this tremendous destructive force, more than 200 nuclear weapons, each having a TNT equivalent yield 7-10-fold greater than the bomb the Americans dropped on Hiroshima, is in the control of a few people.[4]

Striving to achieve military and technical superiority over the Soviet Union, the United States is devoting special attention to increasing the target kill accuracy and increasing missile warhead yield.

The United States has been working in this direction under the "counter-force" concept included back in the Poseidon program.

The Trident I, put into service on SSBNs in 1979, has the same target kill accuracy as the Poseidon (circular error probable of 450 meters), but has twice to triple the warhead yield. Trident II missiles, with which they plan to equip Ohio-class SSBNs beginning in 1989, will have 9-14 warheads each with a yield of up to 475 kilotons and a firing accuracy surpassing Poseidon missiles 4-5-fold. As a result, American experts estimate that the problem of hitting super-hardened small targets (missile silos in particular) will be resolved.

That is why, as foreign experts note, the Tridents are losing the nature of the "deterrent force" publicized by the Pentagon, and being turned into a first strike weapon. Here is what the British newspaper THE TIMES writes in this regard: "A distinctive feature of these missiles is their great accuracy. It is not needed for a retaliatory strike against major cities, on which the 'deterrence' concept is based. Such accuracy is required only if this type of weapon is intended to be used to destroy hardened silos in which each side has its missiles located... It is obvious, however, that the capability to destroy the silos remaining after the missiles have already been launched cannot serve as a means of deterrence... The only point in acquiring such a capability is to be able to deliver a preemptive strike against the missile launchers before the enemy has time to activate them. Thus, this weapon which they are trying to present as a factor for preventing war will become a means of provoking it..." One cannot but agree with this.

FOOTNOTES

1. A preemptive strike aimed at military objectives is called a "counter-force" strike; if aimed at nuclear weapons, it is called a "disarming" strike.

2. In the United States they are broken down into military industry (oil refineries, military plants, railroads, aircraft plants, and so forth), coal industry, and power stations.

3. Medium-range missile and forward-based cruise missile nuclear weapons are not included; the Americans classify them as strategic nuclear reserve forces.

4. There is good reason, therefore, that sensible Americans are again asking themselves: "Will an accidental nuclear war occur as a result of a group of individuals conspiring for some reason to launch nuclear missiles without the authorization of the U.S. President?" These concerns are not unfounded. Up to now, SSBNs are the only component of the U.S. strategic offensive "triad" which do not have an external safeguards against unauthorized launching of missiles.

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NAVAL FORCES

CAPT 1ST RANK ZAYTSEV: RESISTANCE TO TECHNICAL INNOVATION

Moscow KRASNAYA ZVEZDA in Russian 5 Nov 85 p 2

[Interview with Capt 1st Rank N. Zaytsev, chief of directorate of Red Banner Pacific Fleet, by Capt 1st Rank Yu. Timoshchuk, correspondent of KRASNAYA ZVEZDA: "In Step With Progress"; date and place not given]

[Text] In the draft of the new wording of the CPSU Program it is said with absolute definiteness that the party will apply every effort for the Soviet Armed Forces to be at a level which preempts strategic superiority of the imperialist forces and will unfailingly be concerned about the high level of technical equipping of the Armed Forces. These lines cause a sense of satisfaction among all the men. At the same time, they force each serviceman to think about the significance of his personal contribution to ensuring the reliable defense of the motherland and about how important it is under present-day conditions to attain the skillfull mastery of contemporary equipment and weapons and to march in step with scientific and technical progress which is rapidly intruding into military affairs.

Our correspondent, Captain 1st Rank Yu. Timoshchuk, talks about some aspects of scientific and technical progress in the fleet with the chief of one of the directorates of the Red Banner Pacific Fleet, Captain 1st Rank N. Zaytsev.

[Question] Nikolay Pavlovich, in recent years certain changes have taken place in the appearance of the Red Banner Pacific Fleet and its technical equipping....

[Answer] Yes, you are correct. It is sufficient to glance at our surface ships such as, for example, the carrier-cruisers "Minsk" and "Novorossiysk." Powerful and capable of accomplishing the most varied missions. Important changes have also occurred in the equipping of other forces of the fleet. The party is doing everything so that the seamen, just as all the men of the Armed Forces, have everything necessary for the reliable defense of the motherland. And we understand perfectly that this concern should be answered by specific deeds and that the accomplishment of the party lines contained in the draft of the new wording of the CPSU program also depends on each of us.

It is no secret that by itself the inclusion of one or another contemporary ship as part of the fleet is not a guarantee of high combat readiness. For you see, even the most modern equipment can be serviced and used in the old way, without the proper effect....

[Question] In other words, in the fleet just as everywhere, the results of scientific and technical progress, toward the improvement of which the party directs us, depend on the human factor.

[Answer] Unquestionably. The progressive line of scientific and technical progress in the fleet passes through the battle stations of the ships and units and is adhered to by the minds and talent of hundreds of people who are responsible for the life of technical equipment and the employment of weapons. For the present, unfortunately, it cannot be said that the position and qualifications of all naval commanders, officers, staffs, and ship and shore specialists fully meet the requirements of the time and the requirements of the party. In words, no one is against progress; everyone is for progress and for the further improvement of the fleet's combat readiness. But sometimes the incorrect position of individual people is concealed behind correct phrases. We recently conducted a check of the unit of surface ships where Captain 2d Rank V. Kanelskiy serves. The activity of the staff in the mastery of contemporary technical equipment and systems was also closely looked at. Judging from papers and positive statements, here everything seems to be done correctly: there are schedules and plans, conferences are conducted, and each report contains a section on progress. But if we take the state of affairs on some ships, it tells of something quite different. Of the at times low level of activity of ships' specialists in the mastery and employment of electronic computer devices, for example. An obstacle to what is new is also created by the adherence of some flag specialists to equipment which has already been mastered under which tactics and plans for combat training are "fitted." Such an approach compromises what is new and stifles it, and it is necessary to wage a constant struggle against it. In the meanwhile, some responsible comrades in the unit of surface ships which has been mentioned have been strictly warned about the noncomformance of their service style to the requirements of the time. But the fleet's command does not intend to allot them years to restructure their style.

[Question] Not so long ago two sister ships accomplished the same fire mission. Both hit their targets. But one ship achieved success with the very first salvo while the other needed two passes and double the expenditure of resources. After a while, I inquired about the grades: they were favorable for both. Just as the points for the accomplishment of socialist obligations. Is such a procedure optimum? Does it actually stimulate the best?

[Answer] Equalizing never stimulated progress. I know of the case of which you speak. The difference in the result was caused by the reluctance of the commander of the second ship to make full use of the highly effective system for automated weapons control. And the similarity of the grades--by the obsolete procedure for summing up the results of competition.

The draft of the new wording of the CPSU program, in my opinion, speaks absolutely correctly of the necessity to improve the organization and increase the effectiveness of competition and get rid of formalism and stereotype. You see, when it is

approached as something invariable and set, the entire meaning of the remarkable idea of socialist competition is lost. I will explain this by a simple example. As many standards as exist for bringing weapons and equipment to readiness for employment as the number of years the struggle has been under way to exceed them and that is how many years competition has been serving as the stimulus so that today the gun is loaded and reloaded more rapidly than yesterday and the ship is prepared for action and a cruise more rapidly.

But on some ships people no longer have to be hurried up, and it is necessary to instill in them endurance and a love for technological and operational discipline. And competition criteria should be redirected toward this.

[Question] There are many ships in the fleet which embody the latest scientific and technical achievements. But you see, there also are those which have already been mastered--they are not new in service, so to speak. What can be said about the tasks of those who serve on them?

[Answer] Now, just as during the years of World War II, no one conceives, let us say, the landing of an amphibious force on a shore which has been captured by the "enemy" without gunnery fire support. And you see in what heated discussions among fleet specialists of many countries the question of whether ships tube artillery has become outdated with the appearance of missiles found its solution. The answer was prompted by the tactics and practice of daily combat training activity of fleet forces and means. In our fleet we have many ships, including those with artillery armaments, which are not inferior to newer ones in the quality of accomplishment of combat missions. The guarantee of a further increase in the combat potential of the fleet and all the Armed Forces is in the skillful use of all types and models of equipment.

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NAVAL FORCES

EDITORIAL: PROBLEMS FOR NEW TRAINING YEAR

Moscow KRASNAYA ZVEZDA in Russian 14 Nov 85 p 1

[Editorial: "Prior to the New Training Year"]

[Excerpts] The fleet's troops and forces are preparing for the new training year. The organizational and indoctrinational work in the units and on the ships which is connected with this is taking place under the vivifying influence of the discussion of the pre-Congress party documents which has been widely initiated. Understanding its program goals and tasks as well as the meaning of foreign and domestic policy, the motherland's defenders are imbued with the striving to raise even more persistently vigilance and combat readiness and to strengthen discipline and order.

The past training year became a new and important stage in the development of our Armed Forces and their combat potential. To sum up results exactingly and in a businesslike manner, generalize and place at the service of combat readiness advanced experience in the organization of the training and indoctrination process and competition, put unused reserves into action--this means laying a reliable foundation for movement forward. Naturally, this presumes the profound study of the state of affairs on all sectors and aiming at a creative search. The most important task is to do everything necessary so that preparations for the new training year contribute to the maximum degree to the mobilization of the personnel for the struggle for a further increase in the quality indices of soldierly labor.

Preparations for winter training are under way on a broad front, for example, in the units and subunits of the motorized rifle Samaro-Ulyanovsk, Berdichev, and Iron Divisions (Red Banner Carpathian Military District). Immediately after the final check here they actively undertook the improvement of facilities of the training material and technical base and the study and generalization of the leaders' experience. Here special attention is devoted to mastering the most effective procedures for intensification of the training process with the use of simulators and other technical means of instruction, which will permit training specialists with the minimum expenditure of time and resources. At the same time, each instance of failure to accomplish what has been planned is thoroughly analyzed and strict and specific demands are imposed on those who are lagging behind.

One can present many examples of a thoughtful, creative approach to the accomplishment of tasks connected with preparations for the new training year. However, unfortunately there are units and ships where slowness in preparation is observed in this important and responsible matter. This is impermissible. The struggle for a further rise in the quality and effectiveness of competition is unthinkable without the corresponding troop facilities and the clear and uninterrupted operation of the training equipment which meets all contemporary requirements for the methodological skill of the lesson leaders.

The training of the officers is a subject of special concern. Practice convinces us that training-methods assemblies, instructional-methodological and demonstration lessons and exercises, and other forms of command training are not always used with the proper return. As a check showed, many officers could not achieve the high training level of subordinates because they themselves poorly master organizational weapons and equipment. This is observed where in command training they are carried away by theory and disregard its active forms which contribute to the generation of practical skills in the officers. They should be taught more objectively the control of fleet troops and forces, the accomplishment of tasks in a mode of saving time and resources, the organization of the training process, and the maintenance of firm prescribed order and strong military discipline. Here active use should be made of frontline experience and the experience of big exercises of recent years. It is important that all officers be armed with knowledge of the principles of military pedagogy and psychology, Soviet legislation, and leading experience in political indoctrination work. The level of their professional training, closeness to people, and ability to mobilize the personnel for the accomplishment of difficult training combat missions should be at the center of attention when selecting and assigning personnel.

The professional skill of commanders, the rhythm and economy of combat training, and the effectiveness of competition will greatly depend on the quality of planning of combat and political training. It is precisely due to insufficient thinking through of plans in the last training year that in some places there were various types of lack of coordination in combat training and losses and impractical expenditures were permitted. The unreality of plans dampens the ardor of people. It is necessary to be concerned that in planning, all requirements of guidance documents as well as the degree of preparation of the personnel and the specific conditions under which the units and ships are to accomplish their assigned missions are considered. At the same time, the plans should direct people toward the search for new approaches for the accomplishment of these tasks, the display of initiative and enterprise, and the attainment of high results in reduced times with the least expenditures.

The quality of accomplishment of training plans and programs is inseparably connected with the further development of competition. Now, when new goals for combat improvement are being determined in the units and on the ships in individual and collective obligations, it is very important to prevent unnecessary regulation, stereotype, and formalism, provide a worthy outlet for the creativity and initiative of people, and aim them first of all toward the accomplishment of the main tasks of combat readiness. Not one useful undertaking which furthers the intensification of the training process and the strengthening of the economy mode should remain without attention and support. It is necessary to devote fixed attention to initiative which is directed toward a further improvement in competition between regiments and ships and the movement for best large unit. There

should also be thought about how to raise the indoctrinational role of competition and what to do so that its forms and methods correspond more completely to the requirements of the times.

Rates, quality, economy, and organization--these are the main slogans of the day put forth by the party. They should also be determining in the entire many-faceted work in preparing for the new training year. It is the duty of commanders, political organs, and party and Komsomol organizations to make skillful use of the high patriotic enthusiasm of the personnel caused by the discussion of the party's program documents for their mobilization for selfless soldierly labor and for the struggle for the further strengthening of discipline and order. The personal example of the communists and Komsomols should be ensured in all this. Questions connected with preparations for forthcoming lessons must be widely discussed in the course of accounts and elections in party and Komsomol organizations.

It is the patriotic duty of each serviceman to prepare for the new training year in an exemplary manner. It is important to create all conditions for a further rise in the combat readiness of the Armed Forces and a worthy greeting of the 27th Party Congress.

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CIVIL DEFENSE

LEADERSHIP TRAINING FOR COMMANDERS OF CIVILIAN FORMATIONS

Moscow VOYENNYYE ZNANIYA in Russian No 10, Oct 85 pp 15-18

[This is an excerpt from a pamphlet enclosed in VOYENNYYE ZNANIYA and intended to be removed and used separately in connection with Civil Defense training. Therefore it is also paginated separately. The excerpt is numbered pp 1-4. "Organizing Protection of Formations Against Weapons of Mass Destruction"]

[Excerpt] (Subject 7)

METHODOLOGICAL ADVICE

The duration of the class is 3 hours. The class leader is the civil defense chief of staff of the installation. The students are commanders (chiefs) of formations.

The first question is the duties of a formation commander for protecting personnel. The study method is discussion. The second and third questions are examined on plans (maps) of the rural zone which indicates the disposition area of the formations stipulated by the installation's real civil defense plan. All calculations are made taking into account the terrain conditions and the actual capabilities of the formations.

Each question must be studied with the commanders (chiefs) of the formations in strict accordance with those real actions which are envisaged in the event of a threat of an enemy attack. It is necessary that all students firmly learn the basic requirements for the disposition area. It must provide for a rapid assembly and movement of the formations in the necessary direction, convenience of accommodation and rest of personnel, favorable sanitary and epidemic conditions, the presence of routes for advancing toward probable centers of contamination, and protection of personnel and equipment from weapons of mass destruction.

At the class the installation civil defense chief strives to get each commander (chief) not only to understand his tasks, but also to get a clear idea of the entire amount of work to be done for providing personnel protection and be able clearly and correctly give the order to take up the disposition area.

DUTIES OF A FORMATION COMMANDER FOR PROTECTING PERSONNEL

The commander (chief) of a formation is responsible for training fighting men, the constant readiness of the subunit (podrazdeleniye) for carrying out the tasks levied on it, and safeguarding personnel. Needless to say, the commander himself must have a good knowledge of the casualty-producing effects of nuclear, chemical, and bacteriological weapons, master the main methods of protection against weapons of mass destruction, and continually improve personal training on civil defense. He must also remember protective measures against enemy incendiary weapons. Fire may break out in a populated area or in the woods. Therefore, at the disposition area he should provide for the possibility of withdrawing the formations in several directions. When setting up in the woods, it is necessary to remove windfallen branches and twigs, dry grass, leaves, and old trees, clear openings, and prepare fire extinguishing equipment. It is mandatory to assign duty officers and post sentries to guard the location and maintain order.

Knowing the businesslike qualities of subordinates and the capabilities of the equipment and the subunit as a whole will help competently resolve the problems of protecting people in the disposition area, on the march, and in the center of contamination.

A commander must teach personnel to build fall-out and other simple shelters and to use the protective features of the terrain and shelters correctly. The formations set up in an area outside the city, usually in the woods, on gullied or hilly terrain, or in a rural populated area.

A commander also must know well the location of protective structures both in the area outside the city and at the installation, routes to them, and the procedure for filling them with personnel. He must personally inspect all houses (buildings) intended to accommodate people, specify questions of sheltering each subunit, explain communication procedures and notification methods, go over civil defense warning signals, and periodically check on the ability of fighting men to act according to these signals.

If there are no protective structures or not enough of them, new construction is begun. Attempts are made to equip or adapt basements, cellars, and other deepened structures for sheltering personnel.

It is necessary to study the formation's route of advance from the disposition area to the center of contamination. Specify what kind of protective structures and terrain folds can be used to protect people during travel. Think over the entire set of protective measures in the event of radioactive or chemical contamination on the route.

During work in the center of contamination it is necessary to monitor the fulfillment of protective measures and safety procedures. Monitor and record radiation doses. Point out the procedure and places for sheltering personnel upon hearing the "air raid alert" signal in the event of repeated enemy strikes. All work is done under strict observation of radiation protection regimes.

After opening up caved in or damaged protective structures, steps should be taken to repair them for subsequent use for their intended purpose.

If work was carried out on contaminated terrain, personal cleansing of people and decontamination of clothing, footwear, protective equipment, tools, and equipment are organized. Individuals receiving more than the permissible doses of radiation or contaminated by toxic substances are sent for treatment.

ORGANIZING RECONNAISSANCE IN THE DISPOSITION AREA

The purpose of reconnaissance is to give timely notification to personnel located in the disposition area or heading for a center of contamination about what measures have to be taken to protect against contamination by radioactive, toxic, or bacteriological warfare agents.

General and special reconnaissance groups (elements) detect contamination of the terrain and air and warn formation personnel and the population living in the given rural area. These groups determine the level of radiation and the type of toxic agent and mark the boundaries of the contaminated zones. If necessary, they search for bypasses or routes for negotiating contaminated sectors when leaving the disposition area. They constantly monitor the levels of radiation decay and the extent of contamination of the air by toxic agents. To do this they take water and dirt samples and droplets from contaminated equipment and send them to the laboratories.

Meteorological observation is also necessary. The temperature, wind, humidity, precipitation, and atmospheric pressure have a substantial influence on the state and spread of toxic agents. For example, the temperature affects the speed and nature of evaporation of droplet gas and on the movement of contaminated air. It is clear that one cannot correctly assess the radiation and chemical situation without taking meteorological data into account. Therefore radiation and chemical observation posts must have a meteorological kit.

These posts are set up not only in the city on the territory of the installation, but also in the rural area. Kolkhozes, sovkhozes, and various enterprises and institutions located in the rural area also deploy them.

It is important to protect post personnel and create all the conditions for their normal operation. Therefore, a special protective structure or, as a last resort, a crude shelter (covered slit trench) is built for the radiation and chemical observation post.

Post personnel must have a good knowledge of the external characteristics of the enemy's use of nuclear, chemical, and bacteriological weapons. For example, the type of toxic agent can be roughly determined by the actions of aviation. If the strike is delivered by chemical bombs, this means that the enemy most probably used sarin or soman toxic agents. If they are sprayed, VI gases are apparently being used.

In setting formations up in a rural area, radiac and chemical monitoring is carried out. This makes it possible to ascertain the radiation dose received

by personnel and the population and to determine the degree of radioactive and chemical contamination of the equipment, food, and water. This monitoring is organized by the civil defense staff and carried out by the formation commander.

The radiation exposure is calculated in each formation. The results are recorded in a log as a cumulative total.

The formation commander (chief) assesses the personnel's fitness for work. This is done in the following manner: Readings are taken from all troop dose measuring devices (dosimeters), the average radiation dose is determined, and the category of fitness for work is determined according to the corresponding table.

Radiation contamination monitoring is done if a formation's disposition area turns out to be in a contaminated area, let's say, in the path of a radioactive cloud. Having assessed the degree of contamination, one can correctly decide on complete or partial special decontamination. Chemical monitoring is done for this purpose as well.

Warning is quite important for protecting formations in a rural area. Signals and instructions, as a rule, are given by the civil defense staffs. Radio relay and telephone nets, radio equipment, audio signals, television, and radio broadcasts are used for this.

The "air raid alert" signal is given by sirens and by transmitting the text portion over radio networks. All of the remaining signals are sent over communications channels, radio relay nets, and also local radio broadcasting stations. Explanations about the sequence of actions for the population and the formations are simultaneously transmitted. For example, the approximate time that radioactive fallout will begin, the time the contaminated cloud will approach, and the type of toxic agent are given. In addition, the "radiation danger" and "chemical alert" signals are relayed by frequent striking a rail, gong, or similar objects.

Signals and commands given by civil defense staffs are relayed by formation commanders and disseminated to all personnel.

If contamination of the air and terrain is detected, formation commanders independently make the decision to give the appropriate warning signals and take steps to protect personnel.

A duty officer is usually designated at the disposition area, and sentries are posted. Duty is performed in shifts around the clock. The duty officer maintains constant communication with the civil defense staff of his installation, the civil defense staff of the rural soviet in the area in which he is located, and, naturally, with his own formation. He supervises the duty performance of post personnel. The sentries carry out surveillance of the disposition area, guard it, and monitor observation of prescribed order and black-out measures by formation personnel.

ENGINEER PREPARATION OF THE DISPOSITION AREA

The primary thing in engineer preparation of the disposition area of formations in a rural area is to provide reliable protection of personnel against the casualty-producing effects of the enemy's modern weapons and to create conditions for the rapid assembly and unimpeded movement of the subunits to the center of destruction. Therefore, it is best to situate formations along the route of advance and in the order in which the march column is organized.

The main method of protection in a rural area is to shelter people in fallout shelters and also in basements, cellars, root cellars, and stone houses adapted for this. The equipment of formations is sheltered in hollows, gullies or ravines. Craters are dug for them, and shelters are erected.

Engineer preparation also covers work to repair, restore, and maintain roads, bridges, fords, and access roads, and setting up and equipping water supply points.

Upon arrival at the rural area, the main efforts of formations are directed at adapting existing deepened structures and rooms of above-ground buildings as fallout shelters. This can be done much quicker than building new separate shelters.

The simplest shelters are the most expeditious means of engineer protection. Therefore they are most widely used in formation disposition areas.

Let us note that construction of deepened fallout shelters will often be difficult to accomplish due to the lack of building materials and equipment. However, formation commanders must take into account that deepened fallout shelters have more reliable protective characteristics than those equipped in surface buildings. For example, the radiation attenuation factor of cellars is about 100; for basements of stone buildings it is 300-800. However, for surface buildings adapted as shelters the radiation attenuation factor is no more than 50-80.

In building shelters, most of the work is done by hand since available materials such as logs, poles, boards, and brushwood are used, and at times construction equipment will not be available. Estimates of materials, manpower, and equipment required both for construction and for adapting existing facilities as shelters should be made beforehand. One must also take into account that work on adapting structures, in spite of being less labor intensive, is more complicated. Worthy of special attention is the correct distribution of excavating machinery, crane trucks, welders, and other equipment among the formations, taking into account the ground and the amount of work.

A team of 12-15 men is usually assigned for building a shelter with a capacity of up to 40 people. The man hours per job can be estimated by figuring that 12-15 man hours will be required per individual being sheltered.

Labor outlays (per man hour) depend on the shelter design: digging a hollow by hand--1-1.5 cubic meters; cutting cane--7-10 cubic meters; making and installing an air vent--2.5 vents; making and installing an entrance screen--1.3 screens; putting a cushioning layer on a shelter--0.5 cubic meters; erecting a wooden frame brace--0.4 linear meters.

Material consumption for building shelters depends on their design and capacity. The following norms can be used for preliminary estimates of basic material needs.

An uncut timber (odd sized lumber) shelter requires 0.2 cubic meters of lumber per person; a shelter with an arched covering made of brushwood--0.5 cubic meters of brushwood per person; a shelter with a precast reinforced concrete slab roof (without topping)--0.3 cubic meters of reinforced concrete per person; a shelter with a roof and walls of precast reinforced concrete components--0.4-0.5 cubic meters of reinforced concrete per person.

One can base the determination of the amount of work and the time for building protective structures in the disposition area of formations on average norms. Thus, a 12-man team can build a 10-man timber shelter without topping in 7-8 hours. A 12-man team can also build a 20-man uncut design shelter with two levels in 10-11 hours, and a 10-man team can build a 20-man adobe block shelter in 19 hours.

Concluding the class, the leader suggests that the formation commanders give the order to occupy the disposition area and make tactical calculations for engineer preparation of their disposition area specified by the installation civil defense plan.

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MILITARY EDUCATIONAL FACILITIES

MAJ GEN OLSHANSKIY ON EDUCATION OF MILITARY ENGINEERS

Moscow KRASNAYA ZVEZDA in Russian 16 Nov 85 p 2

[Article by Maj Gen A. Olshanskiy, doctor of technical sciences, professor, head of faculty of Military Engineering Academy imeni V. V. Kubyshev: "The Fundamental Nature of Knowledge--the Requirement of the Times"]

[Text] We are all perceiving and evaluating the pre-Congress CPSU documents as generally significant and generally political. And at the same time, obviously, each of us is paying special attention to those propositions with which his activity is connected. Let us say, I and my colleagues are disturbed by those practical problems which flow from the party's program lines in the area of popular education.

It is stressed in the draft of the party program's new wording: "The CPSU will continue to improve the system of popular education with consideration of the requirements to accelerate social and economic development, the prospects for communist construction, and the requirements put forth by the progress of science and technology." I believe that this line also pertains to the higher military school despite its clear specific character. Here, on this score I should also like to share some of my considerations and, more specifically, turn to specific problems in training military engineer personnel.

The question of the nature of specialization of military engineers, for example, has been dictated for a long time in our academies and schools. There are supporters of their narrow as well as broad specialization.

Yes, narrow specialization is necessary. It permits the better training of the young engineer for the accomplishment specifically of those duties which he encounters in his first post after concluding the military educational institution. But aren't there underwater reefs here. And aren't there factors contained in the very model of specialist training which have an adverse influence on his development as an engineer, that is, as a creator and champion of everything new?

I will explain my thought. Unfortunately, I can mention a number of names of officers, in general capable military engineers who, being trained for a post with a comparatively small and specific volume of work, at first coped with it successfully. But later, prematurely convinced of their strength, one day they stopped growing and they lost interest in allied fields of knowledge, the sense of the new became blunt, and complacency appeared.

But there also were other cases in my practice. Where young military engineers who also received a narrow specialty had to work immediately with equipment which was unfamiliar to them. At first, they had extremely modest results. I will not undertake to answer unambiguously the question of whether this is good or bad. I want to stress something else. In the indicated time the majority of the young engineers acquired such valuable qualities as persistence in the attainment of a goal, a keen sense of what is new, the ability and desire to experiment and study, and a readiness to change specialty if required. Subsequently, bold leaders with initiative who are not afraid to accomplish any tasks, even the most non-standard, were obtained from them.

Of course, I am not arguing in favor of seeing that all young specialists be assigned to a post not in accordance with their specialty. The thought is reduced to the idea that today, perhaps, the narrow specialist is even good, but tomorrow his qualifications will no longer meet the requirements of our dynamically developing society. In this connection, we should discuss the specialization of the engineer which would ensure the training of specialists with a rather broad horizon in combination with a narrow specialization who is capable of a rapid change to another if necessary.

In essence, the draft of the new wording of the CPSU Program also orients us toward this. The system of secondary specialized and higher education, it says in this document, should support the national economy's requirement for specialists who combine high professional training, ideological-political maturity, and the skills of organizational and management activity. Military engineers also need all these qualities. They will not get by without high professionalism and broad erudition.

Under conditions of the accelerated development of armaments and equipment military engineers should be ready to encounter in practice equipment, systems, and principles, the study of which was not envisioned either in the school or the academy. Therefore, it is necessary to give them the ability constantly to perfect their knowledge and relearn, in short, so to say, to master professional flexibility. And this is possible only on the basis of the profound and strong basic knowledge of such sciences as mathematics, physics, electronics, and others.

In my opinion, the time has come to think about strengthening the fundamental nature of the military engineers' education. But how can this problem be solved if the training load of cadets and students is also growing so constantly? Let me stress at once that we are not speaking of increasing the hours for the study of general educational disciplines. The reserve, it is believed, should be sought in an improvement in the teaching of special and applied disciplines. They must be saturated with the propositions of basic sciences through the exclusion of the secondary and auxiliary. This pertains to all training forms: lectures, practical lessons, laboratory and monitored work, course projects, and examinations. In other words, basic sciences should be made the genuine basis of special and technical disciplines, in so doing not increasing the total volume of the courses. There are such possibilities; they must be used efficiently.

Future military engineers must be taught the integrated solution of the entire volume of operational, scientific-research, experimental-design, and technological problems. A taste for creativity and for scientific search should be developed

in them and it is important to instill in them skills in the conduct of independent study, scientific analysis, and generalization of the results of observations. This is now required by maintenance personnel, operators, and repairmen, not even to mention scientific personnel and military personnel.

The working out of integrated graduation projects is practiced in the Kaliningrad Higher Engineer School of Engineer Troops imeni A. A. Zhdanov in the department which is directed by Colonel V. Tryanin. Operational-tactical and technical-economic substantiations of the necessity to modernize existing or develop new armament are accomplished by the students in the military-science society in the second and third courses. The student design offices begin to work out an integrated subject for the graduation project ahead of time, in the fourth and fifth courses. The aspects of the problem being examined which were mentioned above--training and scientific-- thus come together.

The existing formof training military engineers first in the school and then in the academy as a whole meets contemporary requirements. But it can and should be improved. For duplication of the material being studied and repetition in the academy of what has been covered in the school often occurs and this is an unforgivable waste of time.

In my opinion, training in the higher military engineer school should be such that the graduate, having mastered general engineering and applied disciplines and studied details, can later show himself as a maintenance man or operator of military equipment or an organizer of repair production with greatest return. It is the military academy's task to train engineers of highest qualification who are capable of leading reliable collectives of military specialists, organizing the solution of important military-technical problems, and taking part in forecasting the development of equipment and armaments. The form, methods, and ways of their instruction and the range of disciplines being studied should correspond to this task.

In short, time is posing an entire series of important problems for the military higher school. Not anybody, but we are to solve them. In the end, the success of the matter also depends precisely on us. Therefore, today the demands on the professor-teacher staff in the professional sense as well as in the moral sense are so high.

Now it is not enough to accomplish our immediate duties correctly. It is necessary to be in a constant intense search and actually to take a stand. This is required by the interests of the matter and the course outlined by our party.

6367
CSO: 1801/65

MILITARY EDUCATIONAL FACILITIES

EDITORIAL: NEED TO IMPROVE MILITARY EDUCATION

Moscow KRASNAYA ZVEZDA in Russian 19 Nov 85 p 1

[Editorial: "Important Tasks of the Military School"]

[Excerpts] The course taken by the party to speed up the social and economic development of society on the basis of scientific and technical progress requires a further improvement of the secondary specialized and higher education system. The draft of the new wording of the CPSU Program points out that this system should satisfy the requirements of the national economy for specialists who combine high professional training, ideological-political maturity, and the skills of organizational and management activity. The party's high requirements which are imposed on the training of contemporary personnel also pertain in full measure to the Soviet military school.

Among the most important tasks facing military educational institutions today is intensification of the training process, strengthening its ties with life and with the practical requirements of the troops and naval forces, and strengthening the effectiveness of the communist, troop, and moral indoctrination of the students and cadets. Needed for their accomplishment is the maximum joining of the efforts of all departments and faculties and the raising of their scientific potential, responsibility for quality, world-outlook direction of the training and indoctrinational process, party spirit in the teaching of training disciplines, and the ideological tempering of the graduates of military educational institutions. Here, paramount attention should be devoted to the profound mastery of Marxist-Leninist theory by the students and cadets and the molding, in them, of a scientific world outlook, political style, and lofty qualities which are inherent in tempered ideological fighters. The entire training and indoctrinational process should contribute to seeing that the knowledge obtained by the trainees is converted into firm convictions and an active life's position.

The profound qualitative changes which are taking place in military affairs at the Armed Forces' contemporary stage of development pose a number of serious tasks for the military educational institutions which are connected with improvement of the tactical, military-technical, and specialized training of the students and cadets and raising their practical skills. Graduates of military educational institutions should be able to act confidently in the difficult situation of an actual battle and make effective use of combat equipment and armament and means for the automation of troop and weapons control to attain victory over the enemy. This ability is born in the course of purposeful theoretical training and

practical lessons and strained drills, exercises, and naval cruises. To learn what is necessary in war--this principle should be the main one and determining in organizing the training process in the military educational institutions, too.

However, the proper attention is still not devoted to the practical direction of instruction in all academies and schools. There are especially many shortcomings in the conduct of lessons in tactical training. These lessons are often conducted under simplified conditions which do not require the trainees to display such command qualities as speed of reaction to a change in the situation, military cunning, and boldness. This is impermissible. Military educational institutions should be genuine carriers of everything advanced in tactics and in the development of military thought.

One of the paramount tasks now facing the military educational institutions is the broad introduction of electronic computer equipment in the training process. This work is important in the highest degree and in its very essence is directed toward the future, toward the tomorrow of the troops and naval forces. The experience accumulated in some military educational institutions, including the Air Force Engineer Academy imeni Professor N. Ye. Zhukovskiy and the Military Engineer Institute imeni A. F. Mozhayskiy, convinces us that the use of computers increases significantly the intensification of the training process and furthers the profound mastery of this equipment itself. However, not yet realized everywhere is the obvious truth that in military affairs today it is already impossible successfully to train highly qualified officer personnel who are capable of marching in step with the development of military science and equipment without the introduction of electronic computer equipment in training practice.

In the official activity of officers, much depends on the level of their methodological training and ability to organize the training and indoctrinational process creatively and maintain high organization in the subunits, units, and on ships. This obliges the command, political organs, and professor-teacher staff of the military educational institutions to devote unremitting attention to the improvement of the methodological skills of students and cadets and arm them with the skill of instructing and indoctrinating subordinates and the work experience of the best commanders.

Great indoctrinational influence on the molding of the personality of the officer as a military leader is exerted by the tenor of the military educational institution's life itself and the organization of military life and service in which the conscientious accomplishment of duties prescribed by the regulations, high state of discipline, and performance become the accustomed standards of behavior and an internal requirement. This circumstance requires that each military educational institution be an example of organization and firm prescribed order. Unfortunately, not all military educational institutions have risen to the height of this requirement. Thus, in the Kazan Higher Tank Command School imeni the Presidium of the Supreme Soviet of the Tatar ASSR and several other military educational institutions there are frequent cases of violation of the daily schedule and military discipline. Here they have not seen that all cadets are distinguished by daily smartness of appearance in formation, style of behavior, and the strict following of military rituals and the requirements of the regulations.

The quality of the training of military personnel is determined to a great extent by the ideological maturity and pedagogical skill of the teachers and their profound knowledge of their subject and ability to march in step with the times and use everything new and progressive when conducting lessons. These are the pivotal problems in the entire activity of political organs and party organizations and in the training-methods work of faculties and departments. It is necessary for party organizations to delve deeper into the content of training, indoctrinational, and methodological work and to instill in the communists a sense of high responsibility for the training of officer personnel. It is necessary to achieve a situation where each teacher of a military educational institution is himself a worthy example for imitation and the model of an officer--commander, political officer, or military engineer.

The Soviet military school always responded keenly to the requirements of life and made a substantial contribution to ensuring the high combat readiness of the Armed Forces. It has all possibilities to accomplish successfully those great and important tasks which face the Armed Forces at the contemporary stage of their development.

6367
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MILITARY EDUCATIONAL FACILITIES

BRIEFS

AWARD TO COMMUNICATIONS ACADEMY--The Military Communications Academy imeni S. M. Budyenniy has been awarded the Czech Order of the Red Banner for great services in the matter of training officer personnel for the Czech People's Army. This award was fastened on the academy's Battle Standard by the First Deputy Minister for National Defense of the CSSR and Chief of the General Staff of the Czech People's Army, Colonel General M. Blagnik. He warmly congratulated commanders, political officers, professorial-instructor staff, and students on the high award. The reply was given by the chief of the academy, Colonel General N. Popov. He expressed sincere gratitude to the government of the CSSR for the high evaluation of the academy's work. [By KRASNAYA ZVEZDA corresponent] [Text] [Moscow KRASNAYA ZVEZDA in Russian 12 Nov 85 p 2] 6367

1801/59

FOREIGN MILITARY AFFAIRS

NEW DEVELOPMENTS IN WESTERN AIR TO AIR MISSILES DISCUSSED

Moscow KRYLYA RODINY in Russian No 9, Sep 85 pp 28-29

[Article by special KRYLYA RODINY correspondent K. Volkov, candidate of technical sciences: "Show...Or an Active Front"]

[Text] The arms race being whipped up by the imperialist circles of the West, especially the US, has left its dismal mark on the 36th Paris Air Show. Manufacturers of aircraft weapon systems have, perhaps, broken all records of previous shows. Although there were relatively few new types of aircraft and helicopters on display, to make up for it Le Bourget Airport and the majority of its pavilions, except for the Soviet one, were literally crammed with their weaponry--models and mockups of air-launched missiles and bombs, cannons and machine guns, munitions and means for guiding them to the target. This is explainable. The combat capabilities of a modern aircraft and helicopter are determined largely now by what weaponry it carries and its effectiveness. That is why we will continue the story on the 36th Air Show beginning with aircraft armament. Besides posters, brochures, booklets, colored photographs and diagrams, many of its models were advertised on video projection screens with a sound track. The thunder of bombs and missiles and the crackle of machine guns gave the visitors a sensation of being not at a show, but at an area of an active front.

Among the hundreds of aircraft weapon models attracting attention, naturally, were the latest ones just placed in service and in various stages of development. We will make note of primarily two types of air-to-air missiles: the AMRAAM (AJM-120A) medium range missile and the ASRAAM (AJM-132) short-range missile. (These are abbreviations of the full name of the missiles of hitting airborne targets.) The AMRAAM missile is being developed by the American firm Hughes Aircraft, and the ASRAAM--jointly by British Aerospace and the West German firm Bodenzeewerk Gerateteknik. As press has reported, the AMRAAM and ASRAAM missiles should completely replace the Sparrow, Sidewinder and Sky Flash now in service on NATO tactical fighters.

The Americans began development of the AMRAAM missile in 1979. The model exhibited at the air show weighed 148 kg, was 3.65 m long and had a diameter of 17.8 cm. The guidance system included a gyro-inertial unit and an active radar homing head with a digital signal processor. It gives the missile the important characteristic of autonomy. Whereas when using missiles with semi-

active heads the pilot has to "illuminate" the target with the onboard radar after missile launch, a missile with an active head illuminates the target itself. In other words, it can be used in the "fire-and-forget" mode. As is noted in foreign press, this missile characteristic sharply increases the effectiveness of long-range aerial combat since it enables the fighter to maneuver freely, avoiding oncoming fire.

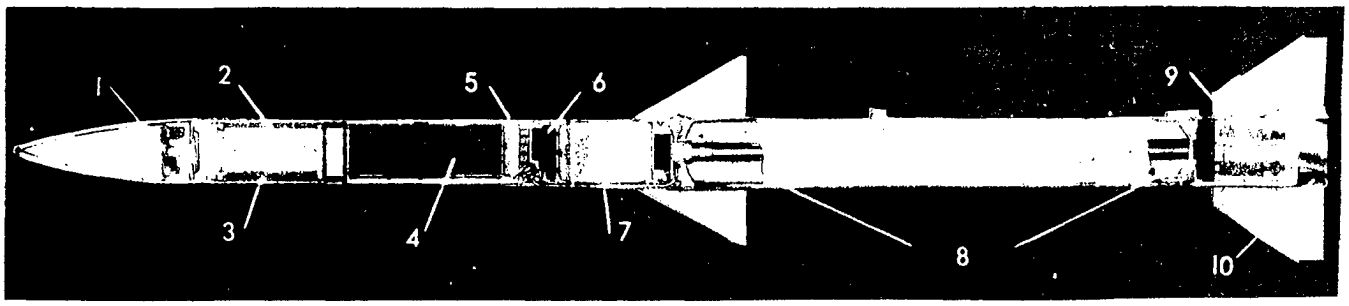
The radar (not heat-seeking) homing head makes it possible to attack a target from a long range and gives the missile all-weather capability. When attacking targets from a distance exceeding the homing head's operating range, the radar correction mode is used. In this mode the aircraft's radar measures the coordinates and speed of the target and missile, and the onboard systems generate command signals based on these measurements and transmit them to the missile via the command guidance link.

At the air show, some European aviation experts spoke quite pessimistically about the fate of the AMRAAM missile. During its development, Hughes Aircraft specialists were unable to resolve technical difficulties on schedule and fell 21 months behind schedule. Development costs rose from the $420 million under the contract to $1 billion, and the cost of each series-produced missile increased to $400,000. That is why the U.S. Congress began to have doubts about the feasibility of financing Air Force and Navy purchases of nearly 24,000 of these missiles for arming F-14, F-15, F-16, F-18 and ATF fighters. Based on information leaked to the press, the pessimists concluded that work on the AMRAAM would probably stop.

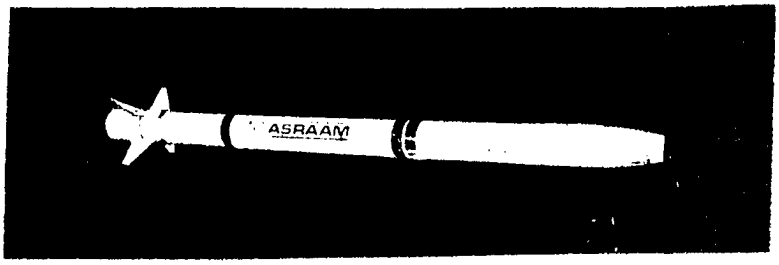
Hughes Aircraft officials assess the situation differently and are acting accordingly. Confident that the Reagan Administration, the Pentagon and the "hawks" in Congress "will not injure" the arms business and will obtain the appropriations needed for purchasing the missiles, they have already begun flight testing the missile and preparing for its series production. The first launch was carried out in December 1984, and the second on 14 May 1985--immediately prior to the openin of the air show.

A prototype of the missile with an operating guidance system (but without a warhead) was launched from an F-16 fighter flying at 6,400 meters at Mach 0.85 against a Super Saber target aircraft which flew at 6,000 meters at Mach 0.7. According to the statement of the company's representative, the missile "hit" the target, passing by it at a distance corresponding to the operating cycle range of the warhead.

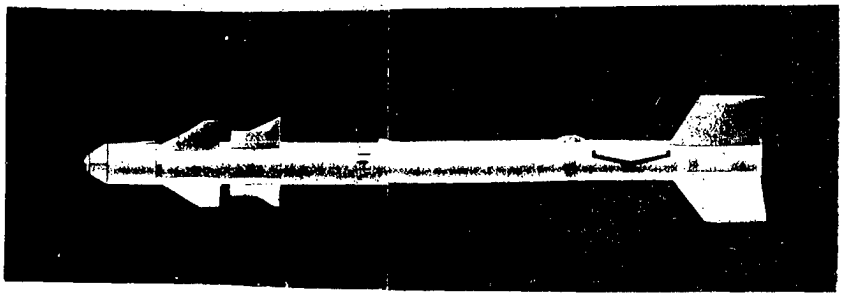
In line with the policy of the governments of the leading NATO countries toward qualitative improvement of all types of weapons, the European arms industry is also stepping up preparations to produce new armament for aircraft and helicopters. The Western European partners of the US plan to outfit the modified F-4 Phantom fighters, Sea Harrier carrier fighters and Tornado ADV fighter interceptors now in their inventory with AMRAAM missiles, and later the advanced EFA fighters as well. Back in 1983, British and West German companies formed a consortium which will series-produce AMRAAM missiles under license for Western European air forces.



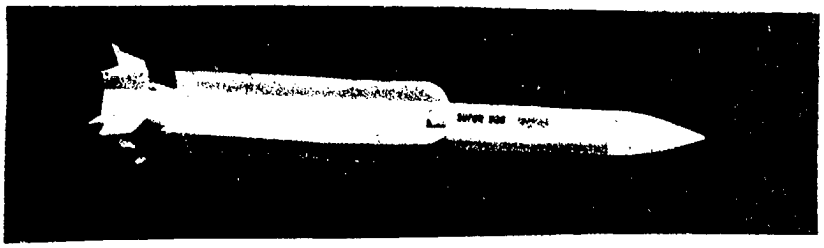
The AMRAAM Missile (US): 1--antenna; 2--storage battery; 3--transmitter; 4--electronics unit; 5--inertial guidance system; 6--fuse; 7--warhead; 8--rocket engine; 9--servo links; 10--transceiver communication link with aircraft.



Mockup of ASRAAM Missile (Britain-West Germany)



Mockup of Magic-2 Missile (France)



Mockup of Super 530D Missile (France)

At the same time, British and West German companies have stepped up experimental design work on their short range ASRAAM missile. According to preliminary data made public at the 36th Air Show, the missile will have the following design characteristics: 2.5-2.7 m in length, 15-17 cm in diameter, a weight of 70-100 kg, maximum launch range 15 km, and minimum launch range of about 300 m. A wingless configuration with rear aerodynamic control surfaces has been selected for the missile. A new infrared (thermal) homing head should provide a greater lock-on and launch zone than that of the Sidewinder. Each ASRAAM missile will come with a launching beam containing all the devices necessary for hooking it up to the aircraft platform. This will make it possible to arm various classes of aircraft with it, including all modern and advanced NATO fighters, replacing the Sparrow, Sidewinder and AMRAAM missiles. The Norwegian firm Raufoss, which has taken on the development of a solid-propellant rocket motor, has joined the British and West German companies developing the ASRAAM.

The special position of France in building aircraft weapon systems, including air-to-air missiles, was invariably noted in the materials of the 36th Air Show and in press articles and addresses of aviation experts. The tremendous amount of armament and military hardware which French industry produces cannot be sold completely in France, and a considerable portion of it is made for export where it competes with American and European products. In 1984, for example, France was in first place in arms exports to developing countries, leaving behind even the US. (The total value of weapons sold by France overseas exceeded $9 billion.)

French firms, not agreeing to the secondary roles offered them in creating new systems, are independently creating even quite expensive weapon systems, thereby intensifying the already stiff competition in the international market. That is precisely how the situation is building up now in the field of aircraft missiles. France is emphatically ignoring the AMRAAM and ASRAAM programs (although "European neighbors" suggested she participate in building the ASRAAM) and developing its own short-range Magic missile, the medium-range Super 530, as well as the advanced universal MICA air-to-air missile.

The French began series production of Magic-2 missiles in late 1984. Representatives of the firm Matra state that this missile costs roughly the same as the American AJM-9M Sidewinder, but surpasses it considerably in effectiveness. The Magic does not have any limitations on the speed and angle of attack of the aircraft platform, possesses substantially greater maneuverability (permissible load factor of 50, whereas for the Sidewinder it is only 40), and it can be launched practically without any preliminary target designation thanks to automatic rapid scanning and target lock-on by the homing head. The Magic-2 is practically all-aspect. Forward hemisphere launch is possible at ranges from 500 to 4,000 meters; rear hemisphere launch, that is in pursuit of the target, is possible from 2,000 to 6,000 meters. The French have managed to increase the missile's combat effectiveness as a result of an interesting design. They moved the cooling device of the multi-element infrared homing head from the missile to the launching beam.

In 1986 the French Air Force plans to equip its Mirage 2000 fighter interceptors with the new medium-range Super 530D missiles with a new semi-

active radar homing head and a wing shape optimized for maneuvering at high altitudes. The launch range at high altitude is 40 km, the net target altitude difference is about 10 km, and the flight speed reaches Mach 5. With a missile weight of about 250 kg, the engine thrust is twice that of the similar British Sky Flash missile and one and one-half times that of the latest modifications of the American Sparrow missile.

Simultaneously with the wide publicity of the Magic-2 and Super 530D missiles, at the air show the French displayed the advanced MICA missile by the company Matra. Incidentally, perhaps the word "displayed" in this case is not quite appropriate. A mockup of the missile was hidden deep in the company stand, was under special guard, and access to it was authorized only to individuals having special passes.

However, some materials available at the air show and statements by company representatives provide a description of the new missile. It weighs about 110 kg and is 3.1 m long. It has a changeable guidance system: an infrared homing head for the short-range variant, and for the medium-range variant--an active radar homing head with gyro-inertial guidance and radio correction in the initial flight phases. Maximum launch range is about 50 km. High maneuverability will be provided by jet vanes to supplement the aerodynamic control surfaces. It is expected that the MICA will be equal to the American AMRAAM missile in long-range combat effectiveness, and be superior in short-range. The MICA is scheduled to enter service on the modified Mirage 2000 aircraft in 1992. It is assumed that the advanced EFA fighters will be equipped with it later on.

In this article we talked only about the technically most perfected newest types of weapons for conducting aerial combat. The next article covers aircraft weapon systems exhibited at the air show for hitting land- and sea-based targets.

12567
CSO: 1801/50

FOREIGN MILITARY AFFAIRS

RESPONSE TO READERS' QUESTIONS ON 'STEALTH' TECHNOLOGY

Moscow KRYLYA RODINY in Russian No 9, Sep 85 pp 32-33

[Article by I. Lavrukhin, engineer: "Stealth--A Weapon of Aggression"*]

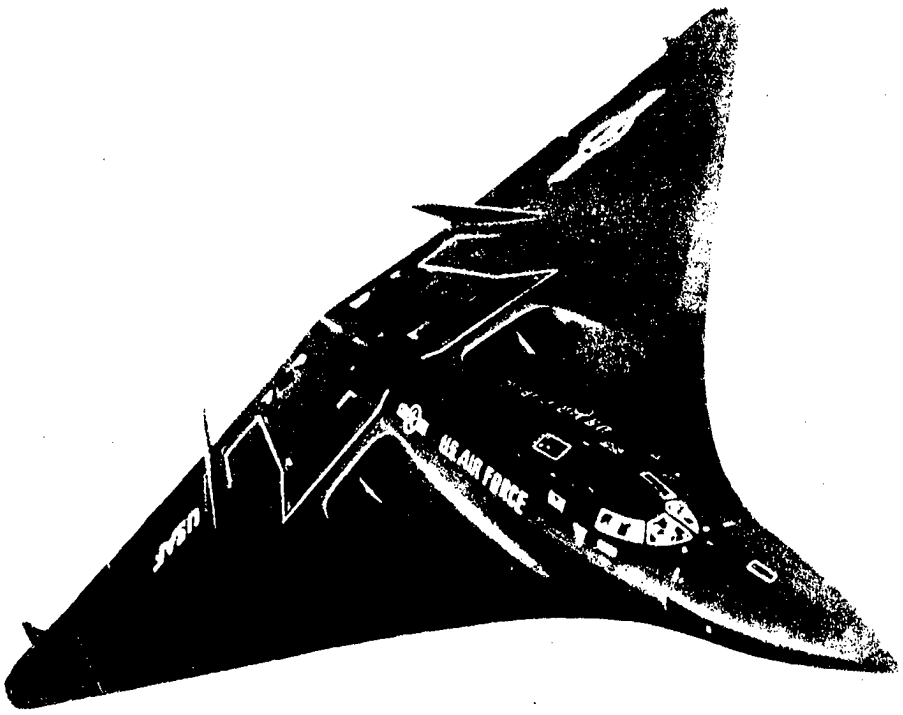
[Text] The reactionary wing of the U.S. Republican Party, headed by President Reagan, celebrated its coming to power with a sharp intensification of the arms race. In the program for the 1980s adopted in October 1981, special attention is given to the development and deployment of new strategic strike systems, including nuclear weapon carriers such as the B-1B variant of the B-1 bomber with more sophisticated electronics** and the so-called "invisible" bombers under the ATB program, built using 'Stealth' technology (they are usually called 'Stealth' bombers in the press). The Reagan Administration has generously allotted the huge sum of $7.3 billion to the Northrop Corporation for their development. (They not that the fact that Northrop and other arms suppliers as well financed the Republicans' election campaign played a definite role in this.)

Foreign press explains the decision to build simultaneously two types of quite expensive aircraft for the same combat role by the Pentagon's desire to reinforce the offensive might of U.S. strategic aviation and by the fear that the "conventional" B-1B may easily "fall prey" to enemy air defense weapons. But the 'Stealth' bomber, invisible to radar and other means of detection, would be able to penetrate to a target even heavily defended against an air attack.

It is known that a bomber in flight is revealed mainly by its size, the degree of contrast of its outline against a background of sky or ground, engine contrails and noise. An aircraft is a large source of heat generation. The system of detecting it by using infrared sensors is based on this, sensitively reacting to the drop in temperatures between the "heated" aircraft and the cooler surrounding air.

'Stealth' technology, according to American military circles, will make it possible to increase the combat effectiveness of U.S. strategic strike systems being deployed and certain tactical aircraft.

*According to foreign press materials.
**See: KRYLYA RODINY, No 8, 1984



This is how the U.S. magazine POPULAR SCIENCE pictures the 'Stealth' strategic bomber.

In their letters, readers S. Kotov from Murom, Ye. Novoselov from Khabarovsk, S. Sayenko from Taranrog and many others ask what are 'Stealth' aircraft and what are their specific characteristics.

Foreign newspapers and journals have written and continue to write much about 'Stealth' as the "newest in aircraft building." Definitions of 'Stealth' technology have even appeared in aviation publications. Not only American, but also some Western designers are trying to use it in developing aircraft of various combat roles.

Although all the technical data on the 'Stealth' aircraft are highly classified, nevertheless specialized journals and newspapers have published some information on the "invisible" aircraft. In particular, ARMED FORCES JOURNAL reported that the four or five 'Stealth' aircraft were first observed in 1978 over the desert in Nevada not far from Nellis Air Force Base where they were being flight tested. These were single-seater test aircraft fitted with two 5,450-kg thrust turbojet engines. Work on the 'Stealth' program is headed by Kelly Johnson, designer of the SR-71 reconnaissance aircraft in which equipment components hampering detection by air defense weapons were used.

The 'Stealth' prototypes observed during flight testing attracted attention by their unusual appearance. They were similar to a triangular shaped "flying wing." The engines were positioned inside the structure. The aircraft's outer shapes were smoothed and rounded.

The "flying wing" design, as the magazine NEW SCIENTIST points out, was chosen for the 'Stealth' aircraft for a reason. It was note a long time ago that when aircraft, even ones with identical dimensions, are illuminated by electromagnetic waves, they give off reflected signals differing in intensity. It can be affected by the aircraft's configuration.

What advantage does the "flying wing" have over other designs? Primarily, as the WASHINGTON POST notes, it is its shape, to which it is simpler to give smooth contours and joints. Electromagnetic waves reflected from such a surface will spread out into different directions, and only a small portion of them will reach the radar antenna. This can be best understood by using the example of a regular mirror. When sunbeams hit it, they are reflected in a specific direction. But all you have to do is give the mirror a convex shape, and the beams begin to disperse in different directions. This is precisely what is involved in the method of using rounded shapes in the entire design of the 'Stealth' aircraft.

As authors of materials already made public surmise, the lower surface of the 'Steal' bomber will be "clean" of any protruding elements. Bombs will be placed in internal compartments. The engines' air intakes are located on top behind the cockpit and are shielded for the purpose of decreasing heat radiation. The cockpit canopy may be flat. In this case, the radar beams reflected off it will go upward, or will curve slightly into different directions. Another prominent design element is that the vertical stabilizers are slanted inward. The engine nozzles are also flat and equipped with baffle-type flaps. It is believed that such a design will make it possible to decrease the exhaust gas temperature.

Various materials and coverings are widely used on the 'Stealth' aircraft, including carbon plastic, graphite epoxy, ceramic, ablative and other materials. Their basic purpose is to "absorb" radar waves or give a weak reflected signal. The molecular structure of some of these materials consists of particles similar to microscopic mirrors. The electromagnetic signals penetrating into these materials begin to wander, like in a maze, from one "mirror" to another. As a result, some of them finally attenuate, and only a small portion escape in a very weakened form.

In addition to the above-listed means helping to make the aircraft "invisible," as press points out, passive and active electronic countermeasures systems will be mounted on vehicles built using 'Stealth' technology. Their main purpose is to generate interference and disorient enemy radars and air defense systems.

Work on the ATB program is going at full steam. However, some foreign aviation experts, including Americans, doubt that a bomber developed at a feverish tempo will completely fulfill the requirements of "invisibility." They emphasize that the builders still have to resolve many technical problems affecting the combat effectiveness of aircraft with 'Stealth' technology. In particular, the magazine INTERNATIONAL DEFENSE REVIEW points out that using radar-absorbing coatings leads to a considerable increase in the aircraft's weight, and surface irregularities lead to an increase in aerodynamic resistance.

In the long struggle between aircraft and radar, which began during the Second World War and continues to this day, only the future will show who will be successful. But billions of American taxpayers' dollars are already flowing like a river into the safes of the military-industrial complex.

12567
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AFGHANISTAN

OVERBURDENED KABUL AIRPORT BEING IMPROVED

Moscow VOZDUSHNYY TRANSPORT in Russian 14 Nov 85 p 3

[Article by Boris Gan, special correspondent of Novosti Press Agency, Kabul: "Despite Mortar Fire"]

[Text] Entering the building of the Kabul Airport, I heard the voice of the announcer announcing in Dari and English and Russian the arrival of an Aeroflot flight in the capital of the Democratic Republic of Afghanistan. The Tu-154 airplane arrived exactly on schedule and the arrival hall was soon filled with a large group of passengers. Half an hour passed, but the number of people in the hall did not decrease.

"This is the usual picture for the Kabul airport terminal building," the assistant Aeroflot representative in the DRA [Democratic Republic of Afghanistan], R. Turdaliyev, who stood next to me explained as if calming me. "If the border formalities take literally minutes here, the passengers wait for their baggage for a long time--for the present the unloading of the airplanes in the airport is still done by hand, there is virtually no mechanical equipment."

Airplanes arrive in Kabul daily from Moscow, Tashkent, Prague, and Delhi. They bring to the capital of Afghanistan not only passengers, but also various national-economy cargoes, food, medical supplies, and so forth. Moreover, now a considerable portion of the cargoes which are vitally necessary for revolutionary Afghanistan arrive by air. There are no railroads in this mountainous country and the transportation of cargoes over motor roads is dangerous--many transportation columns are becoming an objective for attack by counterrevolutionary bands which, on the instructions of their patrons across the ocean, have been striving to paralyze Afghanistan's economic life for almost seven years already. But they are not succeeding in this. And to a considerable degree, the credit for this belongs to the Civil Aviation of the Soviet Union and a number of socialist countries which are ensuring the supplying of Afghanistan by air.

"In its present technical condition, the Kabul International Airport is unable to cope with the ever increasing flow of passengers and freight," the airport's general director, Fakiri Akhmad, joined in our conversation. "And therefore, we are accomplishing its reconstruction which should be completed in two years. The reconstruction is being accomplished with the aid of a group of Soviet specialists.

And Fakiri Akhmad proposed to me that I talk with the leader of the "Reconstruction of the International Airport of the City of Kabul" group, Yu. Nedosekin, who has behind him the building of airports in Leningrad and Murmansk. We met with him in his small but comfortable office located in the airport terminal building.

"Our group," he said, "is conducting the rebuilding of Kabul airport so that it meets contemporary international requirements. The airport now clearly does not meet such requirements. Facilities of the flight zone are being rebuilt and this includes the strengthening of the existing runway surface and its elongation. This work is practically completed, and now the Kabul airport is able to receive all types of airliners. Work on the facilities of the technical servicing area is being conducted ahead of schedule. This year the central distribution point, the substation for powering the 'Svecha-3' light signal system, and facilities for radar and radio navigation will be turned over for operation. Warehouses are being constructed for the storage of freight and five check points are being built for the accomplishment of operational measures. The construction of a new airport terminal building which will be equipped with contemporary information equipment is envisaged. Work is also being conducted on the organization of public services and amenities for the airport department which services domestic lines.

"It must be noted that the Afghan friends undertook the reconstruction of the Kabul International Airport very energetically," Yu. Nedosekin stressed. "Suffice it to say that this important work is under the direct control of the DRA Council of Ministers. With the putting of the 'Svecha-3' light signal system into operation, for example, the Kabul airport will be able to receive airplanes at night, too.

"We are not only conducting the reconstruction of the airport in Kabul, but even now we are also training Afghan specialists for its operation. Up to now, our group has trained more than 150 people of the most diverse professions."

...Work on rebuilding the airport is being conducted under the specific conditions of an undeclared war. This can be seen with the naked eye. Hiding in the mountains which surround Kabul, bandits from the counterrevolutionary rabble are trying in every way to interfere with the normal and uninterrupted work on modernizing the airport. From time to time they subject it to mortar and rocket fire. Therefore, aerial patrolling of the approaches to Kabul is being accomplished. This is by no means excessive precaution.

In the fall of last year, bandits put an Afghan civil airplane out of action, and only the pilot's skill prevented a catastrophe. On 4 September of this year, the Dushmen shot down an Afghan passenger airplane flying from Kandahar to Farah with an American surface-to-air missile. The passengers and crew--52 people--died.

...The passengers who arrived from Moscow received their baggage and the arrival hall emptied. I again saw carts with the cargo of the passengers who took off for Moscow in the same airplane being drawn to the Tu-154. And I clearly imagined a new, modern airport terminal building on the site of the present

airport. Two years will pass and it will be, it will be without fail. The guarantee of this is the selfless labor of the Afghan and Soviet specialists who, despite the difficulties which have befallen their lot, are doing everything for the air gates of Afghanistan always to be widely and reliably open.

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